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# METCALF'S

1926

**SEEDS**  
*of*  
**Known**  
**Origin**



***Our Motto:***  
**To See How Cheap We Can Sell the Best Seed Obtainable**

**I**N handing you our 1926 seed catalog we thought it best to say a few words in reference to our business.

We started in the seed and farm supply business on August 10th, 1910, in a very small store at Chittenango, New York. Our second store was started at Chittenango Station in 1914. Our third store was opened in Syracuse in 1915. Our fourth store was opened in Oneida in 1920. In 1925 our fifth store was started in Fayetteville. We intend to start more stores when the proper locations can be found.

We at all times aim to carry a complete line of the highest grade field and garden seeds obtainable, in addition to having all kinds of hardware, farm supplies and implements. We do not know of anyone at the present time who carries a more complete stock in this state.

We feel that our success since 1910 has been due mainly to the quality of merchandise that we have always tried to handle. There have been many trying times in the agricultural industry in the past fifteen years, but we have always tried to see how cheap we could sell the best merchandise obtainable.

We have been helped in our success by a great many steady customers that we have been able to hold. We know from the patronage we have received that we are being repaid for our efforts, and on account of our policy of not giving credit, we believe we are able to sell the highest grades of merchandise for less money than our competitors.

All of our field seeds are labeled with the purity and germination, so that our customers will know exactly what they are getting when they buy them. We are glad to say, and say it with considerable pride, that we do not and have not handled or sold any imported Red Clover or Alfalfa seed.

**OUR CUSTOMERS SAVE THE FREIGHT.** Our price list, which you will find enclosed with this catalog, tells you how we prepay the freight. We go further than most dealers, for we guarantee safe delivery to your railroad station of any goods bought from us.

**ANOTHER BROAD OFFER.** We will return the purchase price and pay the freight back to Syracuse on any seed that is bought from us if the purity, germination, or quality of the seed is found to be different than was represented by us. We know that our business cannot grow unless our customers are satisfied.

*Insure your garden crops by using Metcalf's Bulk Garden Seeds.* We have the most complete line of field and garden seeds, and everything is handled in bulk. Our seeds are all tested for germination before they are sold. On account of the very careful way we handle our seeds we can almost assure you of satisfaction. In addition to our garden seeds, we have everything for the garden, such as forks, hoes, shovels, fertilizers, insecticides, etc.

If you are not located near Syracuse and are at some distance away, in fairness to yourself get your neighbors to club with you and send us in the whole list of your neighborhood requirements, and our mail order department will rush our lowest prices to you and we are sure that with our

quality, prices and service, we can please you.

All prices are subject to change without notice.

All of our bags and containers are FREE.

We wish to thank everyone who has helped to make our business the success it is.

Yours for a prosperous year,



**THE HOME OF METCALF'S SEEDS**

**B. F. METCALF & SON, INC.**



## CLOVER SEEDS



### DOMESTIC BRAND MEDIUM RED CLOVER

Red Clover is the principal leguminous crop of the United States, although the cultivation of alfalfa has been rapidly increasing in recent years.

It is utilized both for hay and for pasture and often as a soiling crop and to plow under as green manure if the land is deficient in humus. Even where it is used for hay and only the roots plowed under, it greatly increases the yields of succeeding crops. It makes an ideal hay for cattle. Sheep and young stock of all kinds make excellent gains on either the pasture or the hay.

On account of the nitrogen fixing bacteria on its roots, the plant is able to gather large quantities of nitrogen from the air and leave it in the soil in a form which can be readily utilized by growing crops. For this reason it has a most important effect upon the land in maintaining a supply of nitrogen in the soil. It frequently happens that the yield of a grain or potato crop can be almost doubled by the growing and plowing under of a crop of clover. It makes its best growth on rich, fertile, well drained soil containing an abundant quantity of lime. It is not so well adapted to low, poorly drained soils as alsike clover.

As a general rule, any soil that will grow corn successfully will produce good crops of Red Clover. A deep soil is desirable in order that it may fully utilize its extensive root system, which sometimes extends down 5 or 6 feet. The limestone areas of the country are usually well adapted to produce Red Clover. Where the soil is deficient in lime, as in some of the eastern states, this mineral should be applied artificially.

Red Clover grows 2 to 3 feet high and makes two crops a year. When a crop of seed is desired, the first crop is cut for hay and the last growth allowed to go to seed.

When used for hay it should be cut when just past full bloom, as it then contains the greatest amount of protein and dry matter. It should not be allowed to get too dry in curing, as the leaves are apt to be lost off in handling, and they contain a far greater percentage of protein than the rest of the plant.

It should be remembered that while Clover increases the amount of nitrogen in the soil, it also removes other properties which should be replaced, such as potash, phosphorus and lime. It is frequently sown with other grasses and mixtures, and a good combination is Red Clover, Timothy and Fancy Red Top.

If alone, sow at the rate of 15 to 20 pounds per acre.

On account of the vast quantities of clover seed used, it is offered in many different qualities. We caution the farmer against the practice of buying clover seed without having assurances of its quality.

### GENUINE MAMMOTH RED CLOVER

This is a variety of Red Clover producing a heavier growth than the medium and maturing in July, sometimes called "Pea Vine," or "Large Clover." It is impossible to tell the seed of the Medium Red Clover from that of the Mammoth. It produces one crop a year but this one cutting is considerably heavier than one cutting of the Medium Clover. The large size of the plants makes it of greater value as a soil improver than the medium when plowed under.

If used for hay, it should be cut when in early bloom. It is popular for mixture with timothy for hay, as they both mature at the same time. It is excellent for hog pastures.

This seed is procurable in the same brands and qualities as the Medium Clover.

We also usually carry in stock Mammoth Clover that is guaranteed to us by parties from whom we buy it to be the large variety. This seed is purchased from country dealers in the clover-producing sections, who in turn secure it from the farmers in their immediate vicinity and in many cases see the crops growing in the fields. We have always found it very dependable as to variety.

### ALSIKE CLOVER

This variety is intermediate between the Red and White Clover and authorities state it is a distinct variety and not a hybrid, as commonly believed. Blossoms are pinkish white and the size of the plant is about 1 to 1½ feet, being about between the two varieties mentioned in size. The stems and leaves are smaller than those of Red Clover but much more numerous, making a finer hay. It is very nutritious and about equal to alfalfa in feeding value.

It is considered an excellent variety in mixtures with other grasses and clovers. It seems particularly adapted to low wet soils where other clover cannot be grown with success. It is very hardy and stands extremes of climate in this section very well.

Alsiike Clover is being used much more extensively in recent years and while the price per bushel is usually higher than Red Clover, it is much lower in price this year than Red Clover. It must be remembered that there are almost three times as many seeds to the bushel. It flowers in July and August.

Sow, if alone, at the rate of 10 to 15 pounds per acre.

### METCALF'S DOMESTIC GROWN ALFALFA

Alfalfa Clover is one of the most valuable crops that has been introduced in the east in recent years. It is a perennial and on well drained soil it will live from 5 to 50 years with one sowing. The plant is a very deep rooter, and has been known to go down fully 15 feet on old fields. It burrows down into the soil after moisture further than any other plant known, and it is this characteristic which makes it so valuable in dry seasons. Owing to its drought-resisting tendency it has helped in the development of the western states more than any other one plant. Although good drainage is necessary, Alfalfa has been successfully grown on many different types of soil; however, it will not do well on land on which water stands, and should not be put on land that is not well drained to at least a depth of 4 to 6 feet.

Alfalfa succeeds best on soil containing an abundance of lime. Some lime is absolutely essential to success with it.

One of the most important points in connection with its growth is thorough preparation of the seed bed. Too much stress cannot be laid on this feature. When a farmer considers that one planting of Alfalfa will last for many years, with two to four cuttings a year, he can readily see that it will pay to devote plenty of time to the preparation of the land.

It has been found that the best time to sow the seed is June, although in some sections of southern Pennsylvania and New Jersey they sow as late as August. While there have been many successes with this late sowing, it is admitted that there is more chance for failure, as the crop may not get a sufficient start to go safely through the first winter.

Most authorities advise sowing the seed alone, without a nurse crop, broadcast at the rate of 20 to 30 pounds to the acre or in drills at the rate of 15 to 20 pounds and harrowed in lightly.

The best time to cut the hay is when about one-fifth of the plants are in bloom, or when the buds at the base of the plants begin to appear. The hay should be cured in the same way as red clover, although care should be taken to see that the leaves do not get too dry, as, if they do there is apt to be considerable waste in handling.

Much has been said about inoculation in connection with Alfalfa culture. All legumes require nitrogen fixing bacteria, although some of them are able to find them for themselves in almost any soil. Alfalfa is not as well able to do this, however, as the other clovers and legumes. Therefore, unless the soil contains these bacteria, they should be supplied. Much the simplest way is to secure soil from some Alfalfa field. About 100 pounds will do for an acre. Soil from a sweet clover field will do equally well. Sow it in the late afternoon or on a cloudy day, and harrow it in before the sun strikes it.

As a pasture crop it is unsurpassed for all kinds of stock, and as one party said: "Cattle love it, hogs fatten upon it, and a hungry horse wants nothing else." The only drawback in pasturing it is that, like other clovers, it is apt to cause bloat in sheep and cattle unless it is pastured with great care. However, it is so valuable as a pasture crop that many large growers of Alfalfa would rather pasture it and run the risk of losing an occasional head of cattle than to use other feed. If intended for pasture, it should have other grasses sown with it, as with the mixture there is much less chance of bloat. When pasturing it should not be turned on to before the plants are nearly at the blossoming stage, and it should never be pastured closely, or immediately after mowing.

Alfalfa is destined to become one of the most important

## DOMESTIC GROWN ALFALFA—Continued



COMMON ALFALFA

crops on the farms of the east. It has more to recommend it than any other one plant. It is excellent as a ration basis for dairy cows, on account of its richness in protein and easy digestibility, and cattle eat it greedily. In feeding value it has been found that a ton of well cured Alfalfa hay is about equal to a ton of wheat bran. When Alfalfa is fed instead of other forage, it is necessary to use only about half the usual amount of grain.

Finally we wish to say a word about the selection of seed, which is primarily one of the chief features in the successful culture of Alfalfa. The best seed is absolutely essential in order to produce the best results. No matter how well the soil is prepared and fertilized, it is impossible to get a good crop without good seed, so we caution farmers not to overlook this important point. Precaution should be taken against seed from the southwest, as plants from such seed are liable to kill out the first winter. If choice is offered, seed from the latitude of New York, or further north, grown without irrigation, should be selected.

All our seed is northern grown, in a similar latitude to New York, and grown on non-irrigated land.

Furthermore, in addition to selecting seed of the highest vitality, we also exercise the greatest care to secure seed that is absolutely free from dodder and trefoil, dodder being one of the worst enemies of Alfalfa. We do not handle foreign Alfalfa.

## GRIMM ALFALFA

Grimm Alfalfa is something that has been sold in large quantities in the past ten years, but very few purchasers have received the genuine seed. We buy our Grimm Alfalfa from a farmers' association who grow and sell genuine Grimm Alfalfa. They sell it only in branded and sealed bags which have their name on.

Grimm Alfalfa is no more expensive than the common if you look at it in the right way. The price is about double the price of common alfalfa, but you only need to sow half as much. We have seen very nice stands of Grimm Alfalfa in Madison and Onondaga Counties where there was only eight pounds of our Grimm Alfalfa sown to the acre. Still we believe you should sow about fifteen pounds.

Grimm Alfalfa has a different root than the common alfalfa and it does not heave out so much in the cold winters that we have in this locality.

## CANADIAN VARIEGATED

About seventeen years ago there was discovered a variegated alfalfa growing in Ontario, which was exceptionally hardy. This was a blend of alfalfas obtained over fifty years ago from Lorraine and from Baden, the latter being the original home of the Grimm. After carefully investigating the history of this hardy alfalfa, it was given the name of "Canadian Variegated." It has had the natural selection caused by Ontario winters for upwards of fifty years. The winter of 1917-18 was probably the severest on record, killing over fifty per cent of the winter wheat and upwards of 45,000 acres of alfalfa. It also destroyed the tenderest plants in the fields of hardy alfalfa, leaving only the very best. We, therefore, have in Ontario at the present time an alfalfa the seed of which is sure to create a big demand in both Canada and the Northern States, where an exceptionally hardy alfalfa is required.

In an experiment conducted at the Ontario Agricultural College extending over a period of ten years, in which the alfalfa plants were carefully counted annually, the Canadian Variegated made the highest record of those hardy varieties which are grown more or less extensively in Ontario and in some of the Northern States.

We secure our supply direct from Ontario and know that we are offering the very best Canadian Variegated Alfalfa to be obtained.

## SWEET CLOVER

While Sweet Clover is one of the oldest of known plants, it is only in recent years that it has come to be considered of any importance in agriculture. It has always been common as a roadside plant and in waste places, being very noticeable by its fragrance.

Its very great value, however, as a soil renovator has brought it into favor in late years, with the result that it is now being used to advantage for a number of purposes on the farm. It is an upright branching plant, and a very deep rooter. A field where Sweet Clover has been grown is in the best possible condition for starting a crop of alfalfa, as it inoculates the soil perfectly for this plant. The Sweet Clover not only inoculates the soil but the large roots do much toward breaking up and aerating the sub-soil, making conditions very favorable for the growth of the alfalfa.

Sweet Clover makes an excellent pasture for horses, sheep, cattle and hogs, and the easiest way to create an appetite for it is to commence pasturing the stock on it very early in the spring before other pasture has started. Sufficient stock should be kept on it to keep it eaten down close so that there will be an abundance of fresh shoots at all times.

Sweet Clover will grow on some soils too poor in humus to produce either alfalfa or red clover with success. When used for hay, the first season's growth should be cut when it has reached its greatest growth in the fall. The second season it is necessary to cut it before the first bloom buds appear, as after that stage the plants rapidly become coarse and woody and are much less palatable. It is also valuable as a honey plant, as it remains in bloom for a long period.



SWEET CLOVER

Sow, if alone, at the rate of 20 to 30 pounds to the acre of the hulled seed, or if the unhulled seed is used, add about 5 pounds more.

## CRIMSON CLOVER

Crimson Clover is one of the few annuals in the clover family. It is more valuable than any other clover to use as a manure crop to plow under. It grows quickly and produces a very heavy rank clover. It is richer in protein than the common red clover and is very desirable to sow for plowing under. It grows from one and one-half to two feet tall and is a deep rooter. Crimson Clover may be sown any time from July to September at the rate of 15 to 20 pounds per acre.



## METCALF'S RECLEANED TIMOTHY

### SOMETIMES CALLED HERD'S GRASS

This variety of Grass is so well known that a detailed description of it here is hardly necessary.

This might be called the "Universal Grass," as it is probably more generally used and suitable to a greater range of soils than any other variety. It is, however, more especially adapted to moist, loamy soils, and under favorable conditions sometimes attains a height of 4 feet. When used for hay it should be cut in the bloom, as, if allowed to remain longer, it has a tendency to get hard and woody and is not so palatable for cattle. It is a perennial and flowers in June and July.

Handling the large quantities of this Seed that we do, and with our unequalled facilities, we are able to produce the very highest qualities.

We recommend in the highest terms our Metcalf's Best Timothy to the particular farmer who is anxious to secure a quality that will give him the best results.

Note the purity test of 99.60—branded on each and every bag.

If alone, sow at the rate of 10 to 15 pounds to the acre.



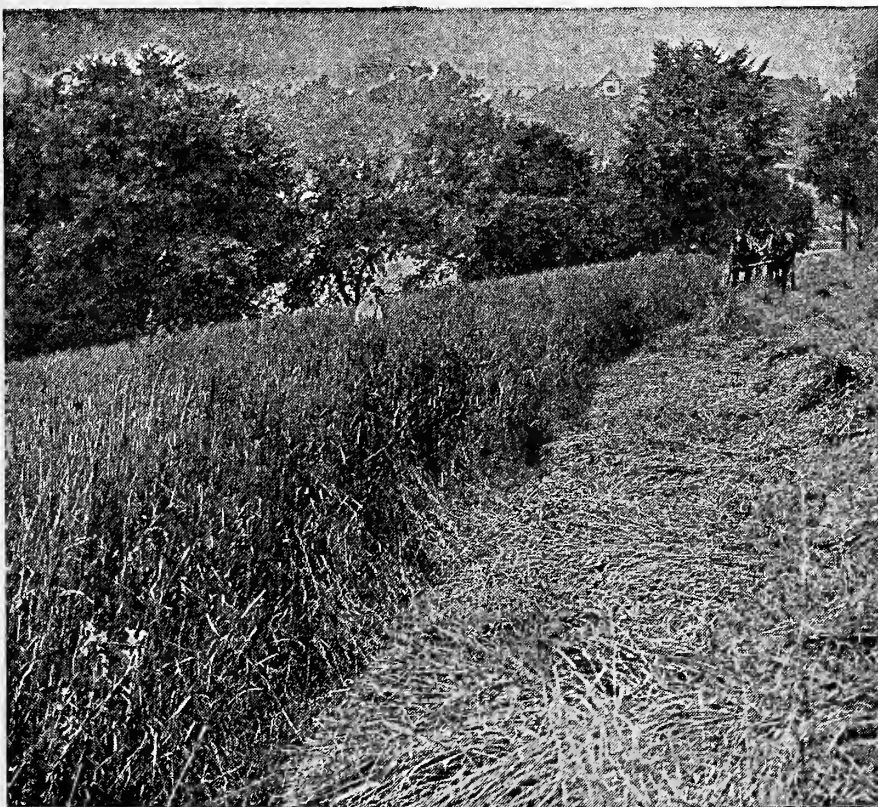
METCALF'S BEST TIMOTHY, 99.60% PURE

Don't buy cheap seed, the best is none too good. Watch the germination on your seed as well as the purity. Every bag of our seed has a tag on stating exact purity and germination.

## ALSIKE AND TIMOTHY MIXED

As a result of Alsike growing with the Timothy in some of the seed-growing sections, we get more or less of this natural mixture in the process of re-cleaning. It makes an exceptionally good mixture for the farmer, as the Alsike ripens the same as the Timothy, and one agricultural expert says of Alsike: "It is hardier than Red Clover and more winter resistant. It is adapted to climatic and soil conditions which are unfavorable to Red Clover, growing on wet and acid soils."

Most of the lots of this mixture that we offer contain as high as 20% of Alsike and other Clovers—and the mixture is correspondingly low in price, compared with the price of Alsike Clover, which means a big saving to the farmers.



A FIELD OF TIMOTHY AND ALSIKE GROWN FROM OUR SEED

## ALBERTA CLUSTER OATS

### THE BIG MONEY MAKER

Alberta Cluster Oats are remarkably well suited to our warmer climate, for they are grown in the far northwestern provinces of Alberta and Manitoba, Canada, where the climate is very severe and cold.

After a great many experiments and all kinds of investigation and tests tried in comparison with other varieties, these oats have been found to possess more good qualities than any other variety.

They are a Cluster Oat and not a Tree Oat, and we believe that they are less liable to lodge and rust.

There have been a great many experiments where the crop has yielded up to eighty bushels per acre. With such a good yield a farmer can afford to pay a little extra for nice plump, white, high-germinating, first-class seed oats. The difference in yield of a few bushels will equal or more than pay the extra cost.

These wonderful white oats are often thought to be clipped, but it is on account of the thin hull that the big meat of the oat breaks through. We have had a great many of these oats that weighed forty-eight pounds to the measured bushel by actual test. When this is the case, a farmer must buy three bushels to take the place of two.

We bring these oats in from Canada in a large way and sell thousands of bushels every year to our customers in New York State and have never had any oats that gave the satisfaction they do.

Our Alberta Cluster Oats are all put up in three-bushel heavy burlap bags, so when ordering we would like to have you order in multiples of three bushels.

We think that one of the best investments a farmer can make is to sow these fancy heavy oats.

Club your orders and write us for prices on large lots.

## CORNELLIAN OATS

As the name implies, this oat originated at Cornell University and has since been quite extensively grown in Central New York. From the fact that the kernels are rather long and slim and gray in color, the appearance is not the best, but this variety seems to be one of considerable merit.

Our supply is secured from a reliable source and should give general satisfaction.

## SPELTZ OR EMMER

This grain is said to be a species of wheat and has the appearance of a combination of wheat, barley and rye. It has been grown quite extensively and with good success for some years throughout the Northwest, where it was first introduced from Europe.

It is a great drought resistant and makes a good crop under most any condition of soil or climate. It is also exceptionally free from rust, smut and other fungus diseases. It has a stiffer straw than oats and is not so likely to lodge. When the glumes are removed the kernel is quite similar to that of wheat, not only in appearance but in composition. The grain is used chiefly as food for domestic animals. Because the enclosing glumes give considerable bulk to the grain, the feeding value is about the same as that of oats or barley. It makes good pasture as well as green feed, possessing heavy stooling properties.

It is readily eaten by all kinds of stock and is especially good for milch cows. Horses do well on it and it makes a good feed for hogs, especially brood sows.

Generally speaking, the best and largest crops are produced in regions having a dry climate with short, hot summers. It is apparently not affected to any extent by either early or late frosts, and should be sown early.

If harvested in bad weather or rained on after being cut, it dries out quickly with little or no damage, as the texture of the leaf and stem is such as to enable it to "turn water" well. In this respect it is far superior to oats.

It is probably the least exacting of all cereals in methods of cultivation. It will be found to be of particular advantage as a sort of intermediate crop when the soil has become exhausted by the growth of more exacting crops. The seed is preferably drilled at one and one-half to three bushels per acre.

## SPRING RYE

Our Spring Rye is western grown and is grown on contract for us by the most reliable seed dealers we know of. The grain has a very nice large, plump kernel. Sow about 1½ to 2 bushels per acre.

## WINTER RYE

We sell only the new Rosen Winter Rye. This new variety is considered the very best kind on the market. The large grain are plump and light colored, the straw is strong and stands up well. The heads fill unusually good, making it a very heavy yielder. Sow at the rate of one and one-half to two bushels per acre.

**SEED GRAINS—Continued****TWO-ROW CHEVALIER BARLEY**

Chevalier Barley is a two-row variety with heads a little longer than the six-row type and quite liable to be a little slender and has a tendency to bend over when ripe. It is a much whiter barley than the common two-row, and we would say it was the best barley to raise. Sow  $1\frac{1}{2}$  to  $2\frac{1}{2}$  bushels per acre.

**TWO-ROW COMMON BARLEY**

Our barley is grown in the state of Wisconsin, for the best two or six-row barley comes from this section. We consider the Two-Row Barley much better to mix with oats and peas if you are going to use your barley with a mixture. It stands up well and is less liable to lodge. Sow  $1\frac{1}{2}$  to  $2\frac{1}{2}$  bushels per acre.

**SIX-ROW ODERBRUCKER BARLEY**

According to the Experimental Stations in Wisconsin the Six-Row Oderbrucker Barley yields from five to ten bushels more than the Two-Row. Also they claim the straw is stiffer and that the time of ripening is about the same as the Two-Row variety. It is also claimed the amount of proteins is larger in the Six-Row than in the other varieties. Sow 2 to  $2\frac{1}{2}$  bushels per acre.

**ALPHA BARLEY**

This is practically a new barley, which originated at the Cornell Agricultural College. It is a two-row barley with long heads and large, plump heavy grain of high quality. The heads are well filled and usually four or five inches long. The straw is long, but strong, and stands up well.

We will be very glad to send you a sample so that you can see the quality of this barley. Sow  $1\frac{1}{2}$  to  $2\frac{1}{2}$  bushels to the acre.



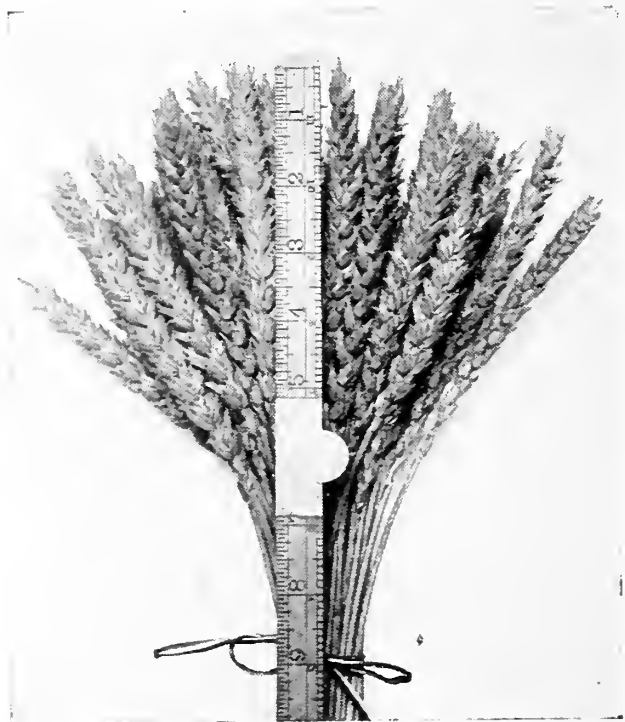
Two-Row BARLEY

**JAPANESE BUCKWHEAT**

This variety is much larger than the old Silver Hull and is of much darker color. The straw is much larger than the Silver Hull. This variety does not make as white a buckwheat flour if grown for that purpose. Sow  $\frac{1}{2}$  to 1 bushel per acre.

**SILVER HULL BUCKWHEAT**

The grain is much smaller than the Japanese and of a silvery gray color. It being much lighter in color than the Japanese, it makes a much whiter buckwheat flour. Sow at the rate of  $\frac{1}{2}$  to 1 bushel per acre.



MARQUIS SPRING WHEAT

**SPRING WHEAT**

We sell only the Marquis type of spring wheat. This is a variety that does very well in our locality. We bring it into this country in a large way from Northwest Canada, mostly from the province of Manitoba. It is a very nice hardy type of spring wheat, has a good stiff straw and the yields that we receive are very good. Sow  $1\frac{1}{2}$  to  $2\frac{1}{2}$  bushels per acre.

**JAPANESE MILLET**

(Panicum crusgalli)

Sometimes called "Barnyard" Millet

This is without doubt the most valuable of the Millets, being well adapted to many different uses. It may be fed green, cured into hay, or cut for ensilage. When fed green it may be cut from time to time until the seed starts to ripen and is highly relished by all kinds of stock in this form. When used for hay it should be cut in the blossom stage. It is a coarse growing variety with heavy leafage. It grows 6 to 8 feet high and yields 15 to 20 tons of green fodder per acre.

It is highly recommended for use as ensilage in combination with corn or soja beans and when used for this purpose with the soja beans it forms a perfect balanced ration that may be fed without grain. It can be sown from May to July and is usually put in at the rate of 12 to 20 pounds to the acre.

**HUNGARIAN MILLET**

This is a quick growing early variety but does not give nearly as heavy a growth as the Golden or Japanese. Produces a very good quality of hay if cut at the proper time, and when cut green as a soiling crop is greatly relished by all kinds of stock. It gives very good results under adverse conditions of both soil and climate.

Sow at the rate of  $\frac{1}{2}$  to  $\frac{3}{4}$  bushel to the acre.

**GOLDEN MILLET**

This well known variety makes a very heavy yield of forage under favorable conditions. The hay is coarser and not so highly valued as that from the smaller millets, but when it can be fed in the green state it is excellent forage to grow on account of the very heavy yields. It is later than most of the other varieties.

Sow at the rate of  $\frac{1}{2}$  bushel to the acre.

**CANADA FIELD PEAS**

Canada Peas can be used for a great many purposes. They are grown in a very large way in this territory mixed with oats and barley. The grain is possessed of a relatively high feeding value and the straw is extra good. Also very good for pasture for some kinds of livestock and makes a very fine crop to plow under for fertilizer. If it is grown with oats and barley, it is very good to feed cows. Our stock is grown in Wisconsin, where the genuine Canada Field Peas are grown. Care must be taken not to buy Japanese or Chinese peas which are sold in this country as Canadas. Sow 2 bushels per acre.

**COW PEAS**

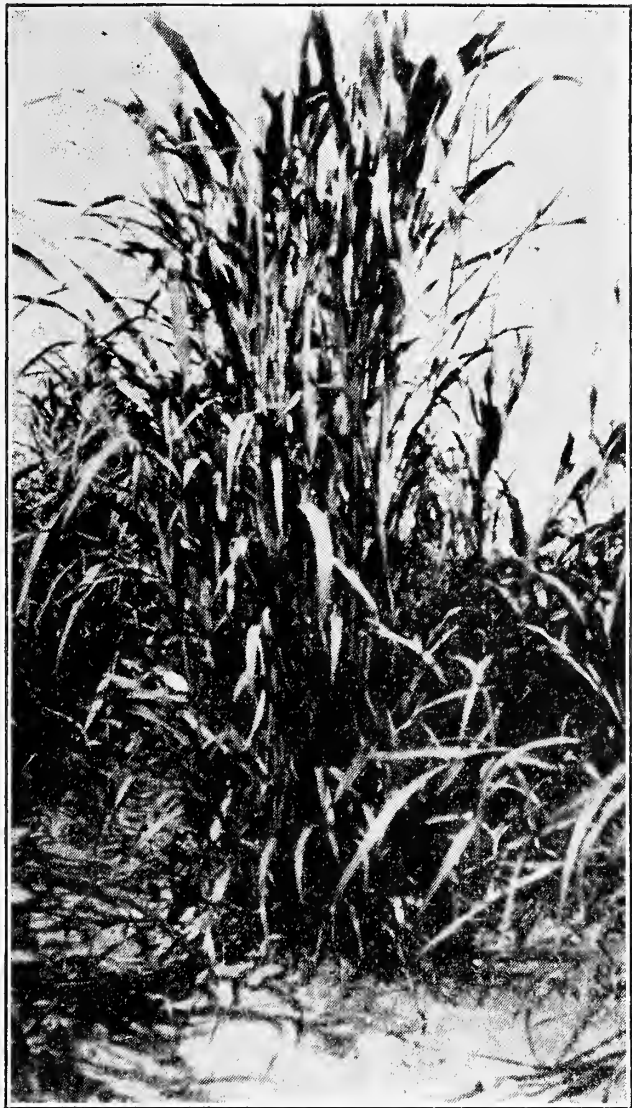
Cow Peas are southern variety peas and do not do very well in our climate. The Whippoorwill are the best variety to grow.



## SUDAN GRASS

This grass was introduced into the United States in 1909, but results obtained from half a pound of seed were very gratifying. It is thought to be the original wild form of the cultivated sorghum. It closely resembles the Johnson Grass when growing but does not reproduce with underground root stalks, which is the undesirable characteristic of Johnson Grass.

It is especially valuable in the dryer regions of the west and southwest, where they have no other satisfactory hay crop, as it is a great drought resistant and a gross feeder. It has been tried in many different sections, however, with very good results.



SUDAN GRASS

Sudan Grass is an annual and has to be seeded each spring like the millets, but it works into rotation very nicely. It grows to a height of 5 to 10 feet, produces 2 to 4 tons of excellent hay to the acre, and all stock relish and thrive on it. It is considered superior to millet hay, and the equal of timothy. It stools abundantly after cutting and where the climate is favorable several cuttings may be secured in a season, the subsequent cuttings being finer stemmed. For hay, it is best to cut just after full bloom. It cures and handles about the same as millet or other forage or hay plants. It is a warm weather plant, and therefore should not be put in until warm weather is assured.

It may be seeded in rows and cultivated with good results, or sown broadcast. If in rows 18 to 24 inches, 4 to 6 pounds will seed an acre, but if broadcast 15 to 20 pounds.

## SUNFLOWER MAMMOTH RUSSIAN

Sunflower is very valuable to the poultry raisers for the poultry run, as the large leaves offer shade for the poultry. The seed also makes a very good addition to any poultry ration, is very rich in oil and protein, also very valuable for hogs. If sown in rows two or three pounds will sow an acre. Plants grow from seven to ten feet tall and are covered with large heads well filled with seed.

## FLAX SEED

Flax Seed is grown very little in our locality. It is grown mostly in Minnesota; seems to grow on sick lands which are too poor for most any other crop.

## SORGHUM OR AMBER CANE

There is very little sorghum raised in this locality. It is principally used as a summer fodder for cattle in the southern states, broadcast about seventy-five pounds per acre.

## DWARF ESSEX RAPE

Throughout the northern part of the United States farmers and stock raisers could advantageously grow more of the succulent forage crops for feeding stock during the summer and autumn months, when the supply of grasses and clovers are sometimes limited. Such crops may usually be grown on land that has already produced an early maturing crop of some sort, such as oats, rye or winter wheat. One of the best of these succulent crops is rape.

Under ordinary conditions it reaches a height of from 1½ to 4 feet and the strong growing roots penetrate the soil to a considerable depth. It is best adapted to rather cool, moist climates.

For its best development it requires a rich, moist, loamy soil, and will usually do well on any but light sandy loams and stiff clays.

In general, a soil that will produce good crops of turnips, cabbage, wheat or corn will be suitable for rape.

Rape is a gross feeder and draws quite heavily on the nitrogen as well as the mineral constituents of the soil, and hence should be used in rotation with crops that feed largely on other elements of plant food.

If the crop is used for pasture, it is advisable that the stock should have access to grass pasture, especially in the case of sheep, as there is then much less danger of bloating. There is no danger of bloating with hogs, but plenty of salt should be supplied.

Numerous trials have shown that one acre of rape, with grain, will fatten 20 wethers in 2 months, and 10 hogs will eat about one-third of an acre in two months.

One of the great advantages of the plant is the rapidity with which it grows under favorable conditions. It then produces a crisp, tender foliage, which is much relished by stock. During prolonged dry weather it is apt to become somewhat tough, although it resists drought fairly well.

Seed is usually put in from May to the last of July, if broadcast, at the rate of 5 to 10 pounds to the acre, or in drills 3 to 4 pounds. Write for our latest price list.

## HAIRY VETCH

This is adapted to nearly as wide a range of uses as Red Clover and in regions where Red Clover for any reason does not do well it is the best substitute. It makes excellent hay, furnishes pasture of high quality, and may be grazed somewhat in the spring without materially reducing the hay crop.

It is a biennial and when planted in the spring it will furnish a large amount of grazing the first season and a full crop of hay the next. It is usually sown, however, in the fall. It is well adapted for a winter green manure and cover crop throughout the northern states and where neither Red Clover nor Crimson succeeds it is the best crop for this purpose, especially on sandy soils. It has been found to be the best cover crop for tobacco fields in Connecticut. It is excellent as a green manure crop for plowing under, furnishing a large quantity of nitrogen and humus to the soil.

If alone, sow at the rate of about ½ to 1 bushel per acre.

## SOY BEANS

As a forage crop, Soy Beans have become very important in many sections of the United States in recent years, being especially valuable in the south, but have been used with good success to a considerable extent in the north in the past few years. Their greatest worth is in sections south of the Red Clover area and where alfalfa cannot be grown successfully. They thus compete principally with Cow Peas, but as cultivation is usually required, they fill a somewhat different agricultural need.

Generally speaking, the Soy Bean requires about the same temperature as corn and does not do well in a cool climate, and the soil requirements are much the same as corn. They will make a fair growth on poorer soil than corn but not as good a growth on poor soils as cow peas. They give best results on fairly fertile loams or clays. On rich soils they are apt to make a large plant growth and comparatively small amount of seed, whereas on poorer soils they make small growth but relatively large yield of seed.



HAIRY VETCH

## FANCY GRASSES—Continued

### RED TOP



RED TOP

Red Top succeeds on a greater variety of soils than, perhaps, any other grass in general use, giving very good results on light soils and the very best results on heavy, moist or low land soils.

The first year it grows somewhat slowly, but it improves with age, spreading rapidly by means of its creeping root stocks. It grows from one to three feet high, according to conditions. It is used extensively in mixtures with Alsike Clover, as they are both adapted to the same character of soil. It matures about the same time as timothy and is used considerably with timothy and red clover to make a heavier yield of hay. When used for hay, it should be cut when in bloom. It flowers in July. It is very valuable in mixtures for permanent pastures and will last indefinitely. It should be pastured close as it is not so readily eaten by stock after it goes to seed.

Sow at rate of 12 to 15 pounds per acre.

We recommend our Metcalf's Best brand of re-cleaned seed, which is the very highest grade on the market.

### CANADIAN BLUE GRASS

It is generally believed that this grass is the product of the Kentucky Blue Grass grown in Canada for a considerable period, and, owing to the fact of its being grown in this colder climate, has taken on a somewhat different character than the original Kentucky article.

It will succeed on soils too poor for Kentucky Blue Grass, preferring soils of a clayed character. If allowed to get too ripe it gets wiry and is not so readily eaten by stock. It is considered harder than the Kentucky Blue Grass.

It has come into more general use during the last few years, many people giving it a trial in seasons when Kentucky Blue Grass has been higher in price than normal and it has given good results both for pasture and lawn purposes.

Canada Blue Grass is a very hardy perennial grass and produces an abundance of running rootstocks, which make it decidedly aggressive and enable it to form a dense, tough sod. Soils containing considerable quantities of clay are the type of soil upon which Canada Blue Grass is most commonly found.

On stiff clay soils of low fertility it seems to thrive to a greater degree than any other.

### KENTUCKY BLUE GRASS

This is a very popular grass for use in mixtures and is widely used for this purpose. It does best on moist, rich loams, fairly well drained, but adapts itself to quite a range



KENTUCKY BLUE GRASS

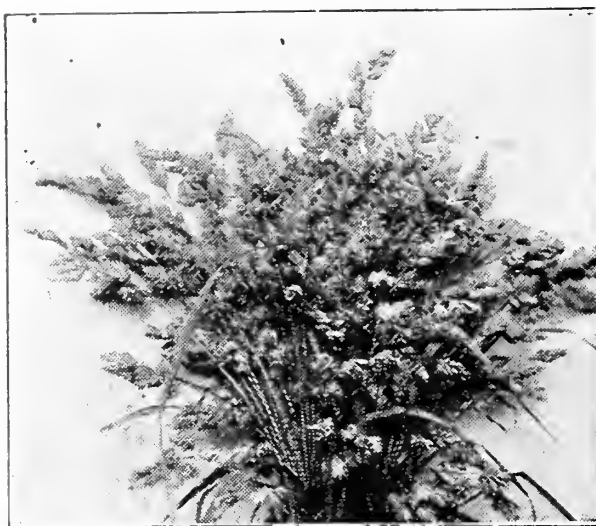
of soils, preferring soils containing some lime. The first year it makes rather slow growth, the seed being very slow to start, but once established it lasts a long time. It should be included in all pasture mixtures, as it is greatly relished by all kinds of stock. The Blue Grass regions of Kentucky are famous for their fine pastures.

It is one of the best grasses known for lawns and is largely used for this purpose. It forms a very thick turf of even growth, but is a little slow in getting established.

It flowers in June and grows one to two feet high. Sow, if alone, at the rate of 2 to 3 bushels to the acre.

### ORCHARD GRASS

This is a very valuable variety for pastures. It starts very early in the spring and makes a rapid growth, being ready for pasture before most other grasses. It is not suitable to sow alone on account of the fact that it grows in tufts and should, therefore, be mixed with other grasses to overcome this tendency. It is very satisfactory, however, for meadows with other grasses and clovers, the hay being very nutritious, but it should be cut when in blossom. It matures about the same time as red clover and makes an excellent hay in mixture with it. It is not so desirable in mixture with timothy, as it matures two to three weeks earlier, and if left until the timothy is ready to cut it becomes too hard and woody.



ORCHARD GRASS

It grows 2 to 4 feet high and as the name implies, is especially adapted for shady places such as orchards, etc. In loose soils it sends its roots down to great depth and for this reason will stand drought better than most grasses. It is not so well suited to low, wet soils, where water stands, although it will make satisfactory growth in a great variety of soils. It does

not exhaust the soil as much as timothy.

A method in common practice in some sections, not too far north, is to pasture it early in the spring, take off a crop of hay, and then pasture it again in the fall.

A few pounds of clover sown with it makes a much heavier growth of hay the first year and afterwards the clover gradually disappears. It flowers in June.

Sow, if alone, at the rate of 2 to 3 bushels per acre.

### ENGLISH or PERENNIAL RYE GRASS

(*Lolium perenne*)

This is a smaller growing variety than the Italian Rye Grass, growing from 1 to 2 feet high, and produces a good quantity of very fine foliage. It tillers out close to the ground and makes a very fine sod.

### ROUGH STALKED MEADOW GRASS

(*Poa trivialis*)

This variety is highly recommended for pasture mixtures. In rich, deep, moist land and heavy clays it gives a continual supply of very nutritious pasture and is preferred by most all stock to many of the other grasses.

It grows to a height of 2 to 3 feet, has narrow leaves and a tender stalk, and while it does not produce heavily it makes up in nutritive value. It is quite closely related to Kentucky Blue Grass (which is sometimes called "Smooth Stalk Meadow Grass"). It flowers in July.

Sow, if alone, at the rate of 15 to 25 pounds to the acre.

### TALL MEADOW OAT GRASS

(*Avena elatior*)

This is a very hardy perennial grass which stands extremes of both heat and cold very well. It makes a very strong growth the first season and is very desirable for pasture.

It is well recommended for cutting green as it makes a very early start in the spring. It flowers in May and June, reaching a height of 2 to 4 feet, and if cut for hay should be cut when in bloom. It makes a heavy aftermath after being mowed. It is recommended for permanent pastures of both short and long duration.

It prefers soils of sandy nature, containing some loam, but also does fairly well on light sandy soils unless the season is very dry.

Sow, if alone, at the rate of 30 to 40 pounds to the acre.

### ITALIAN RYE GRASS

(*Lolium italicum*)

This is a biennial variety, flowering in June or July and growing 1½ to 3 feet high. It seems to be more specially adapted for pasture mixtures of short duration. It makes a very quick growth and if produced on good soil and not too dry can usually be cut two or three times in a season for either green feed or hay. If used for hay it should be cut when in blossom. It thrives on a variety of soils but prefers moist, rich land.

Sow, if alone, at the rate of 40 to 50 pounds to the acre.



## FANCY GRASSES

Get Our Samples and Prices Before You Order

### RED OR CREEPING FESCUE

(*Festuca rubra*)

This variety, as its name indicates, is of a creeping character and on account of its very deep rooting tendency stands severe droughts remarkably well, remaining green when other varieties are pretty well dried up. It is, therefore, especially adapted for dry pastures and produces a good amount of grass of medium quality.

If used for hay it is most nutritious at the time of flowering and should be cut at that time. It is extremely hardy, withstanding the extremes of climate as well as conditions of poor soil very well. It forms a very close sod and is very early to start in the spring. It has also been found to do well in shady places and is used to some extent for lawn mixtures. It grows to a height of 2 to 2½ feet and flowers in June and July.

Sow, if alone, at the rate of 25 to 35 pounds to the acre.

### FOWL MEADOW GRASS or FLOATING FESCUE

(*Poa* or *festuca fluitans*)

This is a tall growing grass, sometimes reaching a height of 5 feet, that especially thrives in low wet places and along ditches where other grasses will not grow, and owing to its weakness and heaviness of stems usually bends over, floating on the surface of the water.

This plant naturally contains a large percentage of water, which reduces its nutritive value and the quantity of hay when cured, but it is relished by both horses and cattle for either pasture or hay, although on account of the limit of usefulness it is used only in a small way.

Sow, if alone, at the rate of 2 bushels to the acre.

### TALL FESCUE

(*Festuca elatior*)

This is a tall growing grass, reaching a height of 3 to 4 feet under favorable conditions, coarse growing and leaves quite broad. It does best on rich, clay soils, on which it produces very heavily. It is somewhat similar to Orchard Grass in that it grows in tufts and also has a tendency to get hard if allowed to get too ripe. It ripens a few days earlier than Orchard Grass. It is very nutritious and considered an excellent variety for both pasture mixtures and for hay. It flowers in June and July.

Sow, if alone, at the rate of 2 to 3 bushels per acre.

### FINE LEAVED SHEEP'S FESCUE

(*Festuca ovina tenifolia*)

This, as the name implies, is quite similar to the Sheep's Fescue but produces a much finer grass, and is quite a favorite with all kinds of stock. It is well adapted for permanent pastures on dry upland soils and also makes a very nice green looking hay on account of its deep rich green color. It is also used considerably for lawn mixtures. It grows 6 to 20 inches high and flowers in June.

Sow, if alone, at the rate of 30 to 40 pounds to the acre.

### VARIOUS LEAVED FESCUE

This variety is used to a considerable extent in some sections in pasture mixtures and also for lawn grass mixtures. It is sometimes used for hay, making a very heavy growth, although it does not make much growth after being mowed.

It seems to be best adapted for lime soils in connection with other grasses of a low growing tendency. It grows to a height of 2 to 3 feet and flowers in June and July.

Sow, if alone, at the rate of 30 to 40 pounds to the acre.

### MEADOW FESCUE

(*Festuca pratensis*)

Also called "English Blue Grass"

In a bulletin issued some time ago by Prof. Vinall of the United States Department of Agriculture, he says: "The merits of this grass are such that it is believed that a better knowledge of its usefulness will result in its being employed much more extensively, especially for permanent pastures throughout the timothy region."

It is a strongly perennial grass with long fibrous roots. The seed stalks reach a height of 1 to 2 feet on upland soil, but on rich black bottom lands it will reach 3 feet or more. It is believed that an increase in the use of Meadow Fescue through the Northeastern States would have a very beneficial effect on the pastures.

Its ability to survive in the wet places when trampled by stock makes it valuable in keeping these places productive in pastures where Timothy, Red Clover and Blue Grass would fail. In the East it has shown itself to be almost as well adapted as Orchard Grass to clayey soils, and, although not quite as productive, it is more palatable. It is said to stand droughts somewhat better than Kentucky Blue Grass on ac-

count of its deeper root system. The soil best adapted to it is heavy black loam, rich in organic matter.

When used for hay it should be cut just as it is coming into bloom, usually about the latter part of June, and an analysis shows its nutritive value a trifle higher than Timothy. It is slightly laxative but has been found to be an excellent fat producer and when mixed with Timothy and Clover improves the value of these as hay for general feeding purposes.

One of the chief advantages of Meadow Fescue is that it starts very quickly from seed, thus occupying the ground to the exclusion of weeds and furnishing forage while the weaker grasses are getting started. It flowers in June and July.

Sow, if alone, at the rate of 2 to 3 bushels per acre.

### HARD FESCUE

(*Festuca duriuscula*)

This is a very hardy dwarf growing variety, valuable for pastures and also considerably used for lawn mixtures. It succeeds in light and medium soils and will stand protracted droughts better than most other varieties.

The name "Hard Fescue" applies to the seed heads, which get very hard when ripe, but the plant itself is very tender and succulent and readily eaten by all stock. It has a slight tendency to grow in tufts, but this is easily overcome when mixed with other grasses. It grows 1½ to 2 feet high and flowers in June.

Sow, if alone, at the rate of 20 to 30 pounds to the acre.

### SHEEP'S FESCUE

(*Festuca ovina*)

This variety, as the name implies, is used largely for sheep pasture, being well adapted for dry upland pastures and greatly relished by sheep, as well as other stock. It is short growing, 6 to 24 inches, a nutritious variety although not a heavy producer. It has a very fine foliage and makes a good variety for lawn mixtures. It flowers in June and July.

Sow, if alone, at the rate of 25 to 30 pounds to the acre.

### CREEPING BENT GRASS or FIORIN

(*Agrostis stolonifera*)

Sometimes called "Marsh" or "Broad Leaved Bent Grass"

This is a grass suited to most localities, growing to a height of 1 to 2½ feet. It is of a creeping nature, as its name implies, the roots spreading under the surface. It is very desirable in permanent mixtures, is a fine growing grass, and relished by all stock.

### RHODE ISLAND BENT GRASS

(*Agrostis canina*)

This variety is quite similar to the Creeping Bent in many ways except that it has a slight tendency to grow in tufts. It will, however, thrive on poorer soil than the Creeping Bent but does not produce quite as heavy or as good quality of grass. It has a tendency to get hard if allowed to get too ripe. It is used largely in lawn mixtures, and grows 1 to 2½ feet high. It flowers in June and July.

If alone, sow at the rate of 2 to 3 bushels to the acre.

### WOOD MEADOW GRASS

(*Poa nemoralis*)

This variety, as its name implies, is especially adapted to growth in wooded and shady places, and for such spots is used to a considerable extent for pastures. It is also used in mixtures for shaded lawns. It grows 1½ to 2 feet high and flowers in June.

Sow, if alone, at the rate of 2 bushels to the acre.

### SWEET SCENTED VERNAL

(True Perennial)

(*Anthoxanthum odoratum*)

This is one of the very earliest pasture grasses. It makes a very thick turf and is considerably used in pasture mixtures, being very desirable for its fragrance, thereby making pastures or hay containing it greatly relished by stock. It is also used for lawn mixtures. It grows 1 to 2 feet high and flowers in May and June.

There is also an annual Sweet Vernal which is of little value.

Sow, if alone, at the rate of 20 to 25 pounds to the acre.

### CRESTED DOGSTAIL

(*Cynosurus cristatus*)

This is a very desirable variety for hard dry soils, being very hardy and not greatly affected by extremes of temperature. It is very nutritious and while young is greatly relished by all stock. When mature, however, it has a tendency to become wiry.

It is recommended for sheep pastures. It forms a close dense sod but inclined to be a little tufty. It is also used for lawn mixtures. It grows 1 to 2 feet high and flowers in July.

Sow, if alone, at the rate of 20 to 30 pounds to the acre.

## METCALF'S LAWN GRASS SEED

BUY PURE SEED WITHOUT WEEDS—WE MIX ALL OUR OWN SEEDS



### HOW TO MAKE A LAWN

The matchless beauty of a well kept lawn instantly commands the attention of all lovers of the beautiful in Nature, because a fine lawn is an unfailing mark of intelligence and taste, to obtain which the main point is to start right. Seed will make a better lawn than turf or sod. The best soil is a good medium texture. The surface should be thoroughly pulverized and smoothed to the desired grade; remove all large stones, roots and hardened pieces of earth that can not be readily broken, ample time being allowed for the thorough settling of the soil, which is greatly aided by a few heavy showers of rain. When the soil is firm, level and suitably moist, sow Metcalf's Lawn Grass Seed at the rate of 150 lbs. per acre. It is unwise to be too economical in the quantity of seed used, if the best results are desired. The seed should be sown broadcast and as evenly as possible; then give a thorough rolling or pat well with the back of a spade. The seed must be well firmed in the soil. When the young grass attains sufficient height it should be mown with a lawn mower every week or ten days, according to the season. In dry weather keep the lawn well watered.

### GENERAL SURFACE RENOVATING

When your lawn has been established you will find it to your advantage to lightly re-seed each season. As early as possible, carefully rake off all dead leaves, etc., and give the lawn a dressing of our pulverized SHEEP MANURE or our PURE BONE MEAL at the rate of at least 500 pounds per acre, and rake in, after which sow our Metcalf Lawn Grass Seed at the rate of 75 pounds to the acre; roll thoroughly or pat with the back of a spade.

### "SHADYPLACE" LAWN GRASS

On nearly all lawns there are more or less shady places, which result in having bare and unsightly spots on which the owners have difficulty in securing a satisfactory stand of grass. After many years of experimenting with different grasses, both native and foreign, we several years ago developed our present "Shady Place" Lawn Grass Seed Mixture. This mixture of grasses is adapted for such places, as it is composed of dwarf-growing grasses which are found naturally growing in shady locations. Sow the seed at the rate of 150 pounds per acre, or one pound to each 200 square feet, after which roll thoroughly. Price— $\frac{1}{2}$  Lb., 30c; Lb., 50c; 5 Lbs., \$2.25.

### METCALF'S LAWN GRASS

Is a mixture of the finest Dwarf Evergreen Grasses that grow and flourish during different months of the year so that a rich, deep green, velvety lawn is constantly maintained. Our mixture is the result of several years experimenting, and, as we now offer it, is unequalled. The quantity required for making a new lawn is 150 pounds per acre, or for renovating old lawns 75 pounds per acre. For 200 square feet, one pound is required for a new lawn, or about one-half pound for renovating. Price— $\frac{1}{2}$  Lb., 20c; 1 Lb., 35c; 5 Lbs., \$1.50.

### TERRACE MIXTURE

There is nothing more annoying than to have ground washed out. In this mixture we have put quick-growing and deep-rooted grasses. Of course, it depends a great deal on this being well started before very heavy rains. Price— $\frac{1}{2}$  Lb., 30c; 1 Lb., 50c; 5 Lbs., \$2.25.

### GOLF LINKS MIXTURE

We have given much attention to grasses for golf links. The mixture of grasses we offer below is composed of such varieties as will thrive here, and are the result of experiments conducted on our grounds, as well as careful observation for several years of the practical results obtained on those golf links for which we have supplied the seed. We shall be glad to prescribe for whatever the requirements of the links may be; for poor lands or rich, high and dry, or low and wet. Price—Per Lb., 40c; 5 Lbs., \$1.75.

### PUTTING GREEN MIXTURE

Having specialized a great many years in all varieties of Grass Seeds, and having become familiar with the habits and characteristics of all cultivated grasses, we were prepared to develop the Mixture of Grasses herewith offered by us, after making a careful study of the requirements for producing the most substantial turf for Putting Greens.

The numerous testimonials we have received establishes the fact that our Mixture of Grasses will produce a thick, tough, beautiful green turf.

The varieties comprising this Mixture of Grasses are all the finest-bladed, low-growing and most hardy kinds, and will maintain their rich, velvety green color throughout the season. Price—1 Lb., 60c; 5 Lbs., \$2.50.

### WHITE DUTCH, OR LAWN, CLOVER

White Dutch Clover is a low growing clover with a fine white berry that is used especially for lawns, but still is one of the finest grasses that can be put into a pasture mixture. This can be sown at all seasons of the year and reseeds itself in a great many cases. White Dutch Clover is very scarce this year and high. Price—Lb., 75c.



PULVERIZED SHEEP MANURE AND PURE BONE MEAL  
ARE THE BEST FERTILIZERS FOR LAWNS. SEND  
US IN A LIST OF YOUR REQUIREMENTS AND  
GET OUR PRICES BEFORE YOU BUY



# A FIELD OF METCALF'S PERFECT ENSILAGE CORN



The above photographs were taken on the James Male Farm in a 185 acre field of corn, which was grown from our seed. Note the height to which this crop has grown and also the great amount of foliage. There was also an abundance of big, well matured ears, which assured a very fine grade of ensilage with a high percentage of digestible nutrients.

Metcalf's Perfect Ensilage is the greatest ensilage corn of today. Selecting your variety of Ensilage Corn is a big and difficult problem these days. It is hard to find a corn that will do for husking and also make a perfect ensilage corn, but in the variety of corn that we sell under the name of Metcalf's Perfect Ensilage Corn we know we have found one.

There are lots of good ensilage corns that will produce a large amount of tonnage to the acre, but with the high price of protein feed at the present time, it is not always advisable to sow the corn that produces the most tons, but the one that produces the largest amount of corn in the ensilage.

Our corn is grown for us under the most careful supervision on the west branch of the Susquehanna River in the vicinity of Williamsport, Pa. This is a hilly section with about the same climate, soil, etc., as we have in this state.

This is a hybrid variety, some of the kernels being quite red and some with more of a yellow cast. Big, deep, thick kernels sinking far into the small cob that it has, makes it a wonderful corn to grow for feed.

If planted and cultivated both ways as you would a field of husking corn, we have seen this corn fit to pick in ninety days right in the vicinity of Syracuse. If it is to be grown for ensilage purposes and planted in rows close together and cultivated one way only, the corn will grow much taller but will not ripen as quickly. We have seen it ready to put in the silo in a hundred days.

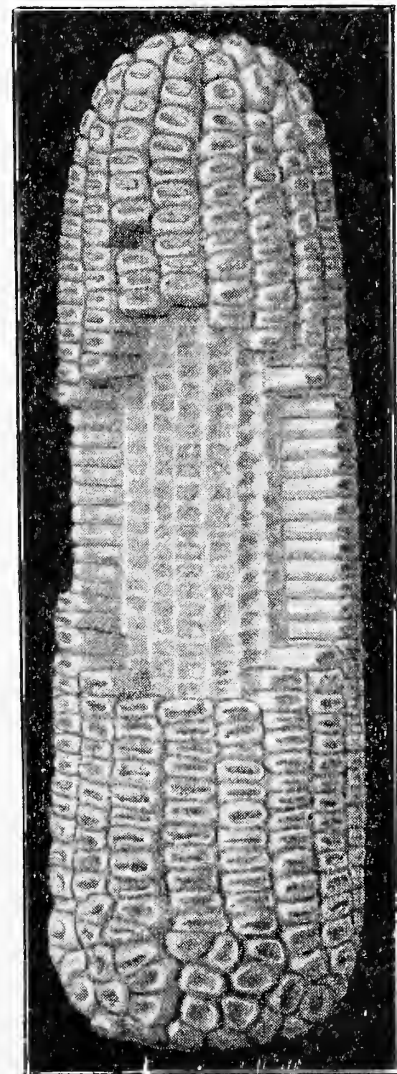
Most of the farmers in our locality like to plant a corn for the silo and still be able to go through and snap off some of the ripe ears of corn in the fall to feed to their pigs, etc.

There is a great deal of difference in the silage made from two different kinds of corn. With the high cost of feed, farmers are looking for corn that has the most good solid ears as well as the biggest amount of foliage, or leaves.

You can change your feed bills by planting Metcalf's Perfect Ensilage corn.

This corn is examined carefully during the growing season, is sorted, butted and tipped in the fall and put through a drying system that takes the moisture out of it so that it will keep well and every bag is stenciled by us with the above name on and we will not ship it out unless it shows a germination of 90% or over. It is nothing for us to have corn that grows practically 100%.

The best seed is the cheapest in the long run.



METCALF'S PERFECT ENSILAGE CORN

## METCALF'S HIGH BRED SEED CORN

### LANCASTER COUNTY SURE CROP

This is an ensilage corn that grows tall, has very heavy foliage and develops ears early. The ears are very long and the corn is a reddish yellow color when shelled. The color and length of ears are some of the peculiarities of this corn. This corn will, of course, do well on the richest land, but it is especially recommended for land that is not so fertile where the best crops are not always obtained. This is a wonderful ensilage corn to use when a person wants ears mixed through the ensilage. It is grown and comes to us in carload lots from Lancaster County, Pennsylvania. Matures in about a hundred days.

### WEST BRANCH SWEEPSTAKES CORN

This is an ensilage corn that will ripen in most any ordinary season and will make the heaviest possible growth of stalks, foliage and grain, and is what we have all been looking for. It is a variegated corn, some of the kernels being a light yellow and others a very dark red. It is an early corn, still is a very heavy yielder. Dairymen like the ensilage made from this corn because it is very rich on account of having so many ears of corn in it.

### LUCE'S FAVORITE

One of the very best early maturing fodder corns, a cross between Minnesota King and Yellow Flint, producing the feeding value of the Flint and many of the desirable qualities of Minnesota King; foliage heavy, strong, vigorous grower, the ears are from nine to twelve inches in length, eight-rowed, broad kernels with a slight dent; matures in ninety-five days.

### PRIDE OF THE NORTH

Possibly the oldest and best known of the ninety-day Dent Corns, and still one of the most popular over a widespread territory. Pride of the North is a strong grower, with a heavy amount of foliage for so early a corn. The ears are from seven to ten inches long, with medium rough kernels, small cob, deep grained and maturing in ninety days.

### IMPROVED LEAMING

Possibly the widest used of all fodder corns and a standard variety for years; a vigorous grower with extremely heavy foliage, the ears are from ten to twelve inches long, bearing a high percentage of round cup dents, heavy kernels, medium small cob with medium deep kernels, maturing in about a hundred and ten days.

### GOLD MINE

One of the standard medium late varieties, with a good growth of stalk and leaves, the ears running from nine to eleven inches in length and small cob, with extremely deep thin kernels. Gold Mine is one of the roughest eared corns grown. It matures in about one hundred and five days.

### CORNELL NO. 11

A newer variety of Dent Corn, which is fast becoming one of the most popular in this territory; the ears solid, medium deep kernel, with smooth rounded cap; often shows a tendency to run to deep orange and is said to possess high feeding qualities; matures in about ninety days.

### EARLY EUREKA

A standard variety of white corn with widespread use for fodder purposes, medium rough ears, good length kernels with a fair-sized white cob; the stalk is a vigorous grower with heavy foliage, maturing ears in about a hundred and five days.

### LATE EUREKA CORN

The largest growing ensilage corn in existence, is grown in Virginia, has very large, flat, square kernels. Strictly a white corn; have known the stalks to grow fifteen feet high, but it will ripen only in a warm climate such as they have in Virginia. If you want quantity instead of quality this is the kind to raise.

### GOLDEN GLOW CORN

This is a corn about the size of Pride of the North, makes fully as much silage, or more, ripens about the same time and has a much nicer ear. It is not as rough in the ear as Pride of the North, grain is a little shorter and more plump, and it is a little more highly colored than some of the other corns.

### WHITE CAP YELLOW DENT

A ninety to ninety-five day corn, used very largely as a fodder corn in the eastern and Ontario districts; foliage heavy, the ears from eight to eleven inches in length, the kernels medium deep, smooth, white cap and straw-colored tip.

### CUBAN GIANT CORN

One of the best white corns for ensilage purposes, has rough ears about ten inches long with white cob, has a good tall stalk with lots of foliage. Matures in about a hundred days.

### REID'S YELLOW DENT CORN

One of the older types of yellow silo corn, has big broad kernels and ripens in about a hundred days. Very good for ensilage purposes.

### LAKE ERIE DENT CORN

A big yellow ensilage corn, has large ears, big kernels and very vigorous stalks, ripens in about a hundred and five days.

### BLOODY BUTCHER CORN

This corn has only been on the market perhaps ten years. It is a large red ensilage corn, having long narrow kernels set deep into the white cob. The ears are about eight inches long, has lots of foliage on the stalk and is excellent for ensilage purposes.

### EARLY MASTODON

A good large fodder corn with good-sized cobs, medium deep kernels, smooth white cap with light yellow tips, maturing in about one hundred and five or ten days.

### 90 DAY GOLDEN DENT

One of the earliest yellow dent corns, has a red cob with narrow-pointed kernels. Ripens in about ninety days. Is very good for husking or ensilage use.

### FLINT OR HUSKING CORNS LONGFELLOW YELLOW FLINT

The standard and best known of the Yellow Flints, one of the best of all Flint varieties; the stalk is of good height and extremely resistant to adverse weather conditions; ears are very long, eight-rowed, smooth kernels, medium size cob, maturing in ninety days.

### ANGEL OF MIDNIGHT

Very similar to Longfellow and oftentimes showing a tendency to run a little deeper orange color.

### SANFORD WHITE FLINT CORN

This is a standard and well known White Flint Corn and is practically the only white Flint Corn sold. It grows to a good height, has large ears and a big flat kernel, maturing in about a hundred days.

### CANADA SMUTNOSE

Large Yellow Flint with a marked tendency for the top of the corn to break out from the husk and become red or bronze color; ten to thirteen inches in length, eight-rowed and one of the best Flint varieties.

### HALL'S GOLDEN NUGGET CORN

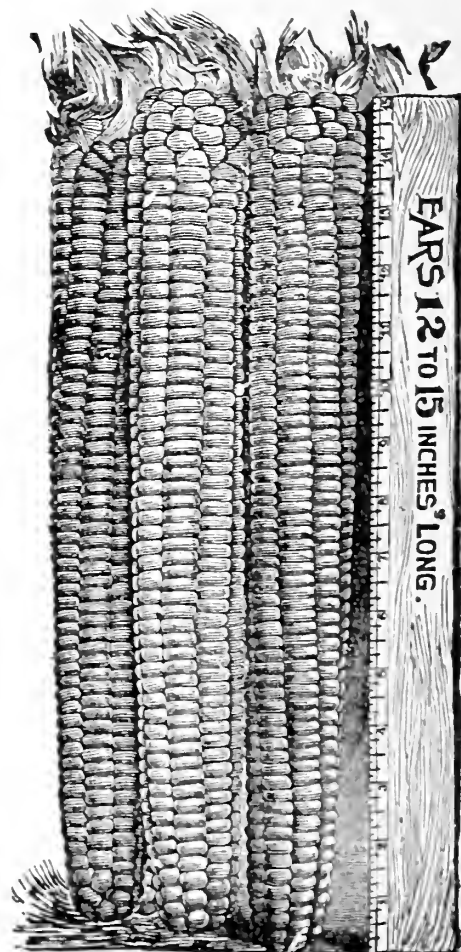
This is the largest Yellow Flint Corn in existence. The ears are very large, sometimes growing twelve inches long, straight yellow deep flat kernels nearly as large as Luce's Favorite Corn. Strictly a Flint corn and will ripen in about a hundred days.

### EIGHT ROW CANADA CORN

This is one of the earliest Eight-Row Flint Corns. It was given the name of "Canada" Flint, but this is simply a trade name, for it is grown in Nebraska and does well in this locality providing the earliest Flint Corn is wanted. The ears are very small, sometimes not more than eight or ten inches long. This will ripen in about eighty-five days.

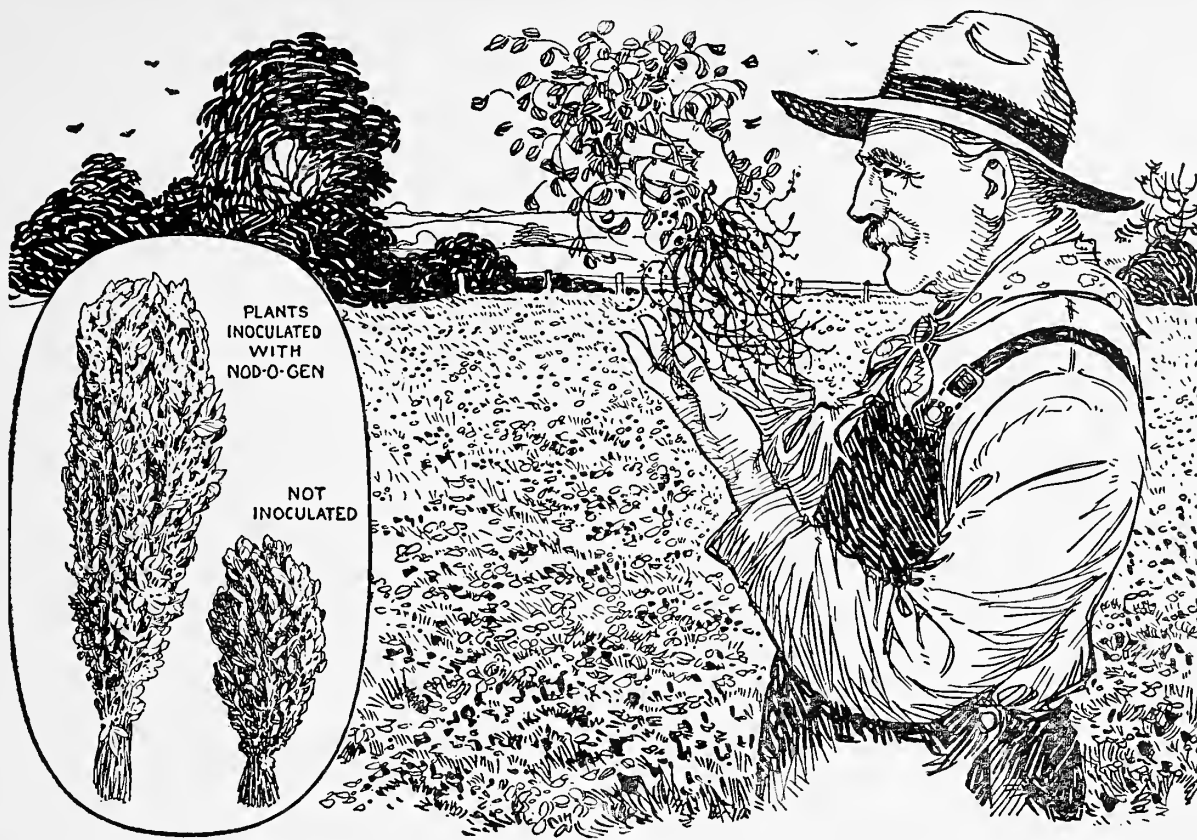
### KING PHILLIP

A large red Flint Corn, eight-rowed, smooth cap, ears about eleven to twelve inches long, a very good fodder Flint variety, drought-resisting, and maturing in about ninety days.



LONGFELLOW YELLOW FLINT





## INOCULATION—the Cheapest and Easiest Way of Improving the Soil

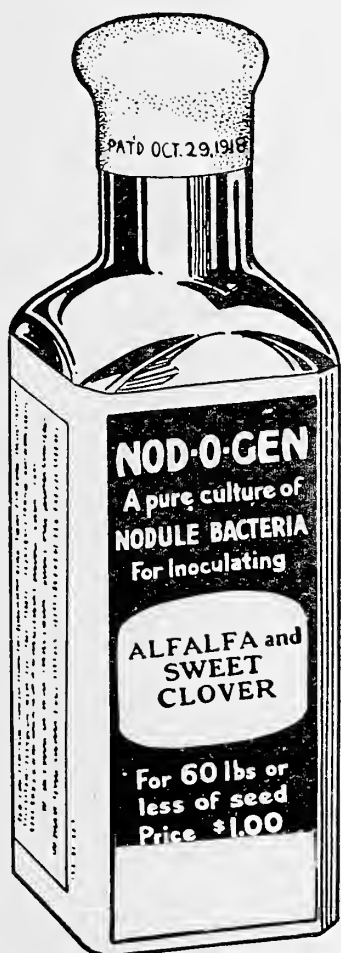
Nitrogen is the most costly of fertilizing elements and, in many respects, the most important. The cheapest way of adding nitrogen to the soil is through the agency of the legume crops such as the clovers, alfalfa, vetch, soy beans, etc.

The legume crops alone cannot add nitrogen to the soil, but they do provide in their root systems a "workshop" in which certain bacteria are able to capture "free" nitrogen from the air that filters down through the upper soil and change it into "fixed" nitrogen compounds available for plant food. When the right kind of bacteria are present they capture all the nitrogen needed by the growing crop and store up a surplus besides which becomes available for future crops.

### Easy to Inoculate with Nod-o-gen

Besides producing big returns on a very small investment, Nod-o-gen is easy to use. No special equipment or utensils are required. Plain and full directions are given on every bottle.

All you need to do is mix the Nod-o-gen from the bottle with a little clean, cool water and pour it over the seed, stirring the seed over and over to dampen as much of it as possible. Then sow the seed in the usual manner. This takes but a few minutes and is the surest method of getting the pure, live bacteria distributed over every part of the field where the seed is sown. As the plant spreads, the bacteria spread with it and a big, healthy growth of nodules is the result.



### Price of Nod-o-gen Pure Cultures

For Alfalfa and all Clovers	{ Bushel size . . . . .	\$1.00
	{ Half-bushel size . . . . .	.75
For Soy Beans, Cow Peas, Field Peas and Vetches	{ Bushel size . . . . .	.50
	{ Five-bushel size . . . . .	2.00
For Garden Beans, Garden Peas, Sweet Peas	{ Garden size . . . . .	.25

## POTATOES GROWN ESPECIALLY FOR SEEDS

### PURE STRAIN BRAND CERTIFIED SEED POTATOES

Only those fields which come up to our Certification Standards can be sold as Certified Seed.

Fields shall be disqualified for the following reasons:

1. The presence of more than 5 per cent of mosaic at either first or second inspection.
2. The presence of more than 2 per cent of wilt associated with stem end browning, black leg, leaf roll, curly dwarf, or hills weak from other causes or of more than 4 per cent of all combined at either first or second inspection.
3. The presence of more than 3 per cent of varietal mixture at the first inspection or more than one-half of one per cent at the second inspection.
4. Infestation with early blight, late blight, Colorado beetles or flea beetles to such an extent as to make the identification of other diseases difficult at either the first or second inspection.
5. The presence of more than 5 per cent of late blight rot in the field or more than 2 per cent in the bin at the third inspection.
6. In addition to the above, such factors as yield, conformity to group type, cultural care of the crop, bruising, insect injury, spraying, seed treatment, and the presence of stem end browning, scab, and rhizoctonia, shall be considered in certifying stock for seed.
7. Before marketing, seed stock shall be graded as follows: All round varieties shall pass over a 2-inch round mesh or a 1¾-inch mesh other than round screen, long varieties to pass over a 1¾-inch screen. All potatoes over 12 ounces in weight shall be removed.

### PURE STRAIN BRAND

The following varieties are the best and most popular now in cultivation:

- Beauty of Hebron, early, well known, and one of the best.
- Early Six Weeks, is extra early, best garden variety.
- Early Rose, old, yet always reliable; order early.
- Early Harvest, long white, first early.
- Irish Cobbler, best early variety, large white, pleases all.
- Ohio, extra early, almost first in market, productive.
- Rural New Yorker, white, one of the best we grow, and well known.
- Sir Walter Raleigh, large, white, nearly round, very productive.
- New No. 9, large round white, big yield, fine for table and keeps well.
- Green Mountain Imp., round, white, big tops, big cropper, fine for table.
- Carman No. 3, late, white, comes well recommended, big yield.
- Dibble's Russet, new, round white, plump, russet skin, excellent quality.

### IRISH COBBLER



This is an extra early variety, first in the market, brings highest price, and is the most popular early potato grown at the present time. We always sell more bushels of the Irish Cobbler than of any other early variety. They produce plump, handsome tubers of good size and excellent quality and the tubers are a beautiful creamy white, eyes strong, well developed, and but slightly indented. Flesh is white and often netted, and this netted skin is nature's mark of fine quality. Any of our customers who grow potatoes for early market will make no mistake in planting this most valuable variety, the Irish Cobbler.

### PURE SEED

Our potatoes are grown especially for seed purposes, are not to be classed with the common stock handled by commission men. You may be asked to pay higher prices, but remember they are not better on that account, and many times not as good.

WRITE FOR SPECIAL PRICES

## GOODS WE SELL BESIDES SEED

This is a SEED Catalog, but we thought it best to enumerate some of the other lines of merchandise that we carry in stock, for we believe that we carry right in our building the largest stock of Seeds, Farm Machinery and Supplies in this part of the state, and we will be very glad to send you pamphlets, price lists, etc., of any of the following items:

- Full line of Oliver Plows and Implements.
- John Deere Farm Machinery
- LeRoy Plows and Implements.
- Planet, Jr., Hand and Horse Drawn Tools.
- New Idea Manure Spreaders and Transplanters.
- Martin Ditchers.
- Louden Stanchions and Litter Carriers.
- Wagons and Farm Trucks.
- Drills and Lime Sowers.
- Alamo Engines.
- Stoughton Oscillating and Three-Knee Bobs.
- Banner Root Cutters.
- Letz Feed Grinders.
- Saw Machinery and Blades.

- Pittsburgh Field and Lawn Fencing and Fence Posts.
- Complete line of Gould's Pumps.
- Myers Hay Tools, Pumps and Barn Door Hangers.
- Harnesses, Strap Work and Blankets.
- Complete line of Insecticides.
- Poultry Netting.
- Galvanized Water Tanks, all sizes.
- All kinds of Roofing Paper.
- Hog Troughs.
- Stone Boat Fronts and Bolster Springs.
- Fanning Mills.
- Wine Presses and Grinders.
- General Hardware.
- Aerators, Milk Cans and Cream Separators.
- One Gallon Standard Syrup Cans and Sap Buckets.
- Chemical Toilets.
- Binding Twine and Pure Manilla Rope.
- Barrel Churns.
- Coleman Lamps and Lanterns.
- Straight, Extension and Step Ladders.
- Automatic Incubators and Brooders.



## ASPARAGUS SEED

Asparagus is easy to grow in any good soil. A bed well cared for lasts for years.

Culture—Sow early in the spring, in drills 2 to 3 feet apart, dropping seed about 1 inch apart. Cover with about 1 inch of earth. An ounce of seed should raise about 800 plants, sowing 1 pound to the acre. The next spring after sowing seed, set out roots in a permanent bed.



**PALMETTO**—A large green grass. A good one to market for profit. Very large size, dark green heavy yielding and comes early. A good all purpose variety.

**GIANT ARGENTEUIL**—We recommend this variety very highly. Adapted to home garden, has large and tender stalks and dark green color.

**BARR'S MAMMOTH**—This brand has large green shoots and they grow the entire season. It is a great favorite for market purposes.

**WASHINGTON RUST RESISTANT**—The latest thing in asparagus. This new variety is practically free from rust and other diseases, also it is large and more vigorous.

	Pkg.	Oz.	¼ Lb.	Lb.
Palmetto .....	.10	.15	.35	.85
Giant Argenteuil.....	.10	.15	.35	.85
Barr's Mammoth.....	.10	.15	.35	.85
Washington Rust Resistant.....	.20	.35	1.00	3.50

1 Year Old		2 Years Old	
ASPARAGUS ROOTS	Per 100	Per 1000	Per 1000
Palmetto .....	\$1.30	\$10.00	\$12.50
Giant Argenteuil.....	1.30	10.00	12.50
Barr's Mammoth.....	1.30	10.00	12.50
Washington .....	2.60	20.00	28.00

## ARTICHOKE

The seed we offer is that of the true artichoke, which is an extensively used vegetable in Europe. In it the edible portion is the thickened scales at the base of the flower-heads or buds. The plant is very different from what is known in America as Artichoke or Jerusalem Artichoke, in which the edible portion is the tuber.

In February or March sow and transplant in hotbed so as to give plenty of room until danger of frost is over. Then set in very rich, well drained soil in rows four feet apart and two feet apart in the row. The plants can be raised in seed beds out of doors, but in that case will not be likely to produce heads the first year. Late in the fall cut off the old tops and thoroughly protect the crowns with leaves or straw to prevent severe freezing.

The second year thin the starting shoots to three of the best, which will commence to form heads about July 1st. The plants may also be blanched like cardoons. This is done by cutting back the stems close to the ground in July, the rapidly growing shoots which then start up may be tied and blanched like celery. As artichoke plants do not yield satisfactorily after three or four years, it is best to start a new plantation as often as once in three years.

**GREEN GLOBE**—The plant of this variety is of medium height with rather deep green leaves. The buds or flower-heads are green, nearly round or somewhat elongated. The scales are rather narrow and spiny, and are moderately fleshy at the base. Price—Pkg., 10c; Oz., \$1.00; 2 Oz., \$1.60; ¼ Lb., \$2.75; Lb., \$10.00.

## BEANS

No crop responds more readily than Beans to good soil and cultivation. A light, rich, well drained loam which was manured for the previous crop is the most desirable. If too manure is used it is apt to make the plant run too much to vine.

Beans are very sensitive to both cold and wet and it is useless to plant them before the ground has become dry and warm. The largest returns will result from planting in drills from two to three feet apart. Cover the seed one and one-half to two inches deep and thin the young plants three to six inches apart in the row. If planted in hills, make the hills about two feet apart each way. For succession, plant at intervals of one to two weeks till midsummer. The plants up to the time of blossoming should have frequent shallow cultivation, but any mutilation of the roots by cultivation after the plants come into bloom is likely to cause the blossoms to blast and so cut off the crop. Cultivation should always be very shallow and it is useless to expect a crop from a field so poorly prepared as to need deep stirring after planting.

We give careful attention to selecting and improving the different varieties and keeping them pure and we invite the most critical comparison of our stocks with those of any other seedsman.

The varieties of garden beans we offer have been separated for convenience into five groups: Wax Podded Dwarf or Bush

sorts, Green Podded Dwarf or Bush sorts, Dwarf Limas, Pole or Running sorts and Pole Limas. Nearly all of these sorts, except the Limas, are suitable when young for use as snaps, which in some localities are called "snapshots." The low growing sorts are called Bunch Beans in some sections. In northern latitudes the term "butter-beans" is often applied to low growing wax podded sorts. In the south, however, by "butter-beans" is usually meant limas.

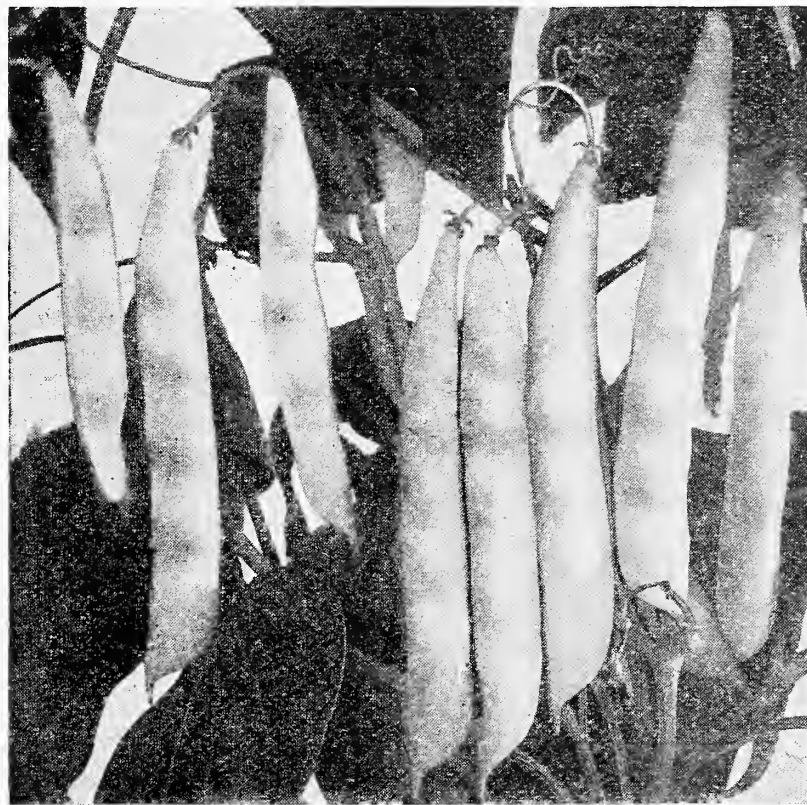
## DWARF OR BUSH—WAX PODDED SORTS

**GOLDEN WAX, IMPROVED** (Grenell's)—Closely resembles Golden Wax, differing only in having a shorter, stouter and more straight, flat pod. Plant is a trifle shorter and apparently not as productive as in the Old Style. The brown mottled seed is darker in color than Golden Wax.

**DAVIS WAX**—This is also called Davis White Kidney Wax. It is a well known market sort, much used for shipping. The plants are very hardy and productive and the variety is very desirable where a handsome wax-podded, while seeded intermediate sort is wanted. The plants are very vigorous. The pods are remarkably long, about six inches, sometimes longer. They are handsome, light yellow, straight, very attractive, and when young are crisp and tender. The dry beans are excellent for baking. Seed medium large, kidney shaped, clear white.

**CHALLENGE DWARF BLACK WAX**—Continued experience has satisfied us of the great merit of this variety as the earliest wax podded bean. In all our many comparisons of this bean with other extra early sorts, we have found it the first to give a full picking of pods which were of very excellent quality. The plants, although small, are compact and erect, bearing pods well up from the ground. The pods are an attractive medium yellow in color, medium sized, about four and one-fourth inches long, roundish oval, considerably curved, fleshy, crisp, tender and stringless. Seed jet black, longer and more curved than Prolific Wax. We consider this the best early wax bean for the home or market garden.

**MICHIGAN WHITE WAX**—A white seeded Golden Wax. An excellent variety, very early, productive and of good quality. Pods 4½ to 5 inches long, oval in form, broad, meaty and stringless; color light golden yellow.



IMPROVED GOLDEN WAX BEANS

**CURRIE'S RUSTPROOF WAX**—It has been claimed that this variety, usually midseason but sometimes earlier maturing, is absolutely rustproof and we have found it as nearly rustproof as any wax podded bean. The plants are very vigorous, hardy and productive. The pods are light yellow, similar in shape to Golden Wax but longer, about five and one-half to six inches in length. Seed long, oval, rounded at ends, medium sized, purplish black. This is a well known market gardening and truckers' sort in some sections.

**REFUGEE WAX**—Stringless. A popular canner's variety. Midseason, very hardy, vigorous and productive. Pods 4½ to 5 inches long, slender, regularly curved, round, well filled, with no depressions; fleshy, fine grained and excellent quality. Color pale yellow.

**HODSON WAX**—The plants of this late maturing variety are exceedingly vigorous, hardy and productive. It is rust resistant and is becoming popular with shippers. This variety is very well adapted for market gardening purposes on account of its vigor of growth, productiveness, handsome pods and freedom from bean diseases. The pods are handsome, clear creamy white, very long, about six to seven inches, straight or slightly curved, flat but fleshy and of good quality. They are crisp and tender if picked when quite young. Seed long, cylindrical, uniform in shape; color dull purplish red splashed with pale buff.

## BEANS—Continued

**PENCIL POD WAX**—This very handsome black wax sort is medium early, fairly hardy and productive. It is one of the very best sorts for home use and for near markets where highest quality is desired. The plants are strong growing with roughened leaves. The pods are long, five and one-half to six inches, straight, round, fleshy and of a bright yellow color. They are tender, absolutely stringless and are produced through a long season. Seed long, round, medium sized, solid black.

**UNRIVALED WAX**—The pods of this dwarf variety are longer than Golden Wax and a little lighter in color, are rather narrow and somewhat flattened but fleshy. This variety usually matures soon after our Golden Wax and is sometimes as early. The plants are large and vigorous with leaves similar to Golden Wax in color and shape but are a little larger. The pods when well grown are borne in abundance well up from the ground. Seed small, flat, slightly kidney shaped; color ochre-brown. This sort is suitable for market gardeners and is also used for the home garden.

**WARDWELL'S KIDNEY WAX**—This standard variety, maturing a little later than Golden Wax, yields a large crop of long, nearly straight, broad, light golden yellow, handsome pods. These are of large size, about six inches long, and are of good quality. They always command a ready sale, making the variety one of the most profitable for the market gardener as well as shipper. This is also very extensively used for snaps for the home garden. The plants are strong growing and bear their long pods well up from the ground. The leaves are large, broad and slightly roughened. Seed large flattened, kidney shaped, white with dark markings about the eye.

**ROUND POD KIDNEY WAX**—A very handsome mid-season variety, especially desirable for the home garden.

The plants are of strong growth, spreading and very productive. The leaves are large, broad and roughened. The pods are long and round, five and one-half to six inches, slightly curved, light yellow, wax-like, stringless and of the very best quality. Seed long, cylindrical, medium sized, nearly white with a little dark marking about the eye.

**BLACK GERMAN WAX**—Early; pods round, about five inches long, fleshy, brittle and stringless, deep yellow in color and attractive; a standard sort.

### GREEN PODDED SORTS

**STRINGLESS GREEN POD**—A very desirable dwarf green podded snap sort for the home garden and largely grown for the market. The plants are large, spreading and productive. The pods are medium green, five to six inches long, cylindrical, larger than those of Red Valentine, but are quite as fleshy, of equally high quality and remain crisp and tender longer. They mature a little later. Seed of Medium size and length, yellowish brown.

**BOUNTIFUL**—This excellent dwarf, green podded sort, is similar in appearance to Early Yellow Kidney Six Weeks but is of much better quality. The vines are vigorous and productive. The pods are very long, six to seven inches, straight, broad, flat, light green, of handsome appearance and absolutely stringless for snaps. They are tender and brittle much longer than most sorts. The pods are longer, broader and have much longer tips than those of Long Yellow Six Weeks. Seed medium sized, kidney shaped, light yellow with brownish circle about eye. Bountiful is a most desirable early sort for snaps for the home garden.

**FULL MEASURE**—A fine, stringless, early medium green, high quality bean. Pods straight, 6 inches long, very fleshy, round, crease-backed and showing depressions around the beans. Season

with Burpee's Stringless, though not as productive. Seed bean much resembles Red Valentine.

**IMPROVED EARLY VALENTINE**—Is very hardy and early, germinates in cold ground where other sorts would not. Vines are about 15 inches high, yield well; pods are round and fleshy and eaten when young are of good quality; the seed is red spotted.

**BLACK VALENTINE**—A very hardy and productive green podded sort with strong, vigorous vines. The pods are nearly round or slightly flattened but very handsome, are much longer, straighter and less fleshy than Red Valentine, the plant a little more spreading and in season a little later. A large crop can be depended on and the product is very attractive on the market. It is very extensively used for shipping. The pods are medium dark green and about six inches long, seed small to medium sized, black, oblong, slightly flattened.

**DWARF HORTICULTURAL**—One of the best dwarf sorts for green shell beans for the home garden and market, can be used early as a green podded snap bean. The plants are very productive, compact, and upright, with large leaves. The mature pods are about five and one-half inches in length, broad and thick, curved, with splashes of bright red on a yellowish ground. They become fit for use as green shelled beans early and in this condition the beans are very large, easily shelled and are about equal to the lima in quality. Seed large, oval, plump, pale buff splashed with deep red.

**REFUGEE OR THOUSAND TO ONE**—A standard very productive sort, highly esteemed for late planting for snaps and very extensively used for shipping, canning and pickling. Sometimes called Late Refugee, Round Pod Refugee and Improved Refugee. The plants are very large, spreading, exceedingly hardy, with many small, smooth, light green leaves. The mature pods are about five and one-fourth inches long, cylindrical, slightly curved, medium green when in condition for use as snaps, but as they mature becoming light yellow, sometimes splashed with purple. Seed long, cylindrical, light drab, thickly dotted and splashed with purple.

### DWARF LIMAS

**BURPEE'S IMPROVED BUSH LIMA**—This is a little the earliest maturing of the large seeded limas. The plants are vigorous and productive. The pods are medium green, very large, about five inches long, thick and usually contain four beans, which are unusually thick, of largest size and of excellent quality. Seed very large, thick, and usually shows a greenish white tinge, which is generally considered an indication of superior quality. One of the best and most extensively used bush limas for the market as well as home garden.

**FORDHOOK BUSH LIMA**—An improved dwarf lima of the Kumerle type. It is sometimes called Potato Bush Lima. The plants are vigorous and erect, bearing well above the ground. The pods, which are produced in large clusters, are medium green, about four and three-fourths inches long and each contains three to five large beans of exceptionally fine quality. It is much more productive than Kumerle and matures earlier. Seed large, irregularly oval in shape, very thick, white with greenish tinge. This sort is very popular for home and market use, especially in the east.

**HENDERSON'S BUSH**—A vigorous, hardy, very early and small type of Bush Lima; much in favor with canners. Pods small, about 3 inches long, containing three to four small, flat, white beans of good quality.

**DREER'S BUSH**—A thick seeded, or potato type, of Dwarf Lima; equally productive with Burpee's but a week later; of high quality.

### POLE LIMAS

Of all the pole beans, limas are considered to have the greatest economic value. The culture is the same as for other pole beans except that being more tender, the seed is usually planted one to two weeks later. In firm soils it will be found of advantage to place the beans on edge with the eye down, as when planted in this manner they germinate and come up more readily.

**KING OF THE GARDEN LIMA**—The vines of this standard pole lima are very vigorous and productive. The pods are medium dark green, very large, five to six inches long, broad, flat, filled with four or five very large white beans of finest quality. On account of its large pods it is a favorite with market gardeners. It will come into bearing earlier and make larger pods if not more than two vines are left to grow on a pole. Seed very large, ovoid, flat, white, with slight greenish tinge.

**SEIBERT'S EARLY LIMA**—In earliness, ease of shelling, size, beauty and quality of the green beans, this variety leads all other early limas for either the home garden or market. The vines are vigorous and remarkably productive. The pods are medium green, large, flat, about five inches long, moderately curved. The green shell beans are very large, very tender and of finest quality. Seed ovoid, flat, with slight greenish tinge.

**WHITE DUTCH RUNNER**—Same general habit as Scarlet Runner; pods slightly larger; flowers and beans white.

**BROAD WINDSOR**—The English "Broad Bean"; largest and best of its class.

**SCARLET RUNNER**—On the order of limas; grown mostly in America for its ornamental, bright scarlet flowers.



BOUNTIFUL STRINGLESS GREEN POD



**BEANS—Continued****POLE OR RUNNING**

**KENTUCKY WONDER WAX**—This vigorous wax podded pole bean is very similar to the green podded Kentucky Wonder but the pods are a little broader. They are very fleshy and stringless as snaps and are of excellent quality. The pods are very long, handsome light yellow, often eight to nine inches in length. Seed medium sized, oval, flattened, very irregular, usually somewhat shriveled, dark brown. Its earliness and hardness commend this as a pole bean well adapted even for northern latitudes.

**DUTCH CASE KNIFE**—The vines of this well known green podded kidney bean for green shell use are of good climbing habit, but twining rather loosely and may be used for a corn hill sort of medium season. It is used for snaps when quite young. The leaves are large and crumpled. The pods are very long, seven to eight inches, flat, irregular, medium green, becoming lighter as they mature. Seed broad, kidney shaped, flat, clear white.

**GOLDEN CLUSTER WAX**—An excellent pole wax-podded sort; early, vigorous, hardy and productive. Pods  $6\frac{1}{2}$  to 7 inches long, extremely straight and flat; very fleshy, fine-grained, attractive and good quality; color light waxy-yellow. Beans white, oval-shaped.

**LAZY WIFE**—Good shell beans: long, thick, stringless pods.

**KENTUCKY WONDER OR OLD HOMESTEAD**—The most popular green-podded climbing or corn-hill bean; early and productive. Pods 8 to 9 inches long, very slender, decidedly curved, slightly stringy, tender and good quality.

**LONDON HORTICULTURAL OR SPECKLED CRANBERRY**—One of the best of the horticultural varieties as a general purpose late green shell bean for home or market. The vines are moderately vigorous with large, light colored leaves. The pods are medium length, four and one-half to five and one-half inches, pale green when young, becoming as they mature yellowish green striped or splashed with red. The beans are large, ovate, flesh colored, splashed and spotted with wine-red and of the highest quality, either green or dry. Many like this sort better than limas. This well known horticultural pole bean is sold also as Wren's Egg.

	Pkt.	Pt.	Qt.	4 Qts.	Pk.
Golden Wax, Improved Beans....	.15	.35	.60	2.00	3.25
Davis Wax.....	.15	.35	.60	2.00	3.25
Challenge Dwarf Black Wax.....	.15	.35	.60	2.00	3.25
Michigan White Wax.....	.20	.35	.60	2.25	4.00
Currie's Rust Proof Wax.....	.15	.35	.60	2.00	3.25
Refugee Wax.....	.15	.35	.60	2.00	3.25
Hodson Wax.....	.15	.35	.60	2.00	3.25
Pencil Pod Wax.....	.15	.35	.60	2.00	3.25
Unrivalled Wax.....	.15	.35	.60	2.00	3.25
Wardwell's Kidney Wax.....	.15	.35	.60	2.00	3.25
Round Pod Kidney Wax.....	.15	.35	.60	2.00	3.25
Black German Wax.....	.15	.35	.60	2.00	3.25
Stringless Green Pod.....	.15	.30	.50	1.75	3.00
Bountiful .....	.25	.40	.75	2.50	
Full Measure.....	.25	.40	.75	2.50	
Improved Early Valentine.....	.25	.40	.75	2.50	
Black Valentine.....	.15	.30	.50	1.75	3.00
Dwarf Horticultural.....	.15	.30	.60	2.00	3.25
Refugee or Thousand to One.....	.15	.30	.50	1.75	3.00
Burpee's Improved Bush Lima....	.15	.45	.80	2.50	4.25
Fordhook Bush Lima.....	.15	.50	.90	2.75	5.00
Henderson's Bush.....	.15	.35	.65	2.00	3.50
Dreer's Bush.....	.15	.40	.70	2.25	4.00
King of The Garden Lima.....	.15	.40	.70	2.25	4.00
Seibert's Early Lima.....	.15	.45	.80	2.25	4.00
White Dutch Runner.....	.15	.45	.80	2.25	4.00
Broad Windsor.....	.15	.45	.80	2.25	4.00
Scarlet Runner.....	.15	.45	.80	2.50	4.25
Kentucky Wonder Wax.....	.15	.40	.75	2.50	4.00
Dutch Case Knife.....	.15	.30	.60	2.00	3.25
Golden Cluster Wax.....	.15	.45	.80	2.75	4.50
Lazy Wife.....	.15	.40	.70	2.00	3.50
Kentucky Wonder or Old Home- stead .....	.15	.30	.50	1.75	3.00
London Horticultural or Speckled Cranberry .....	.15	.35	.60	2.00	3.25

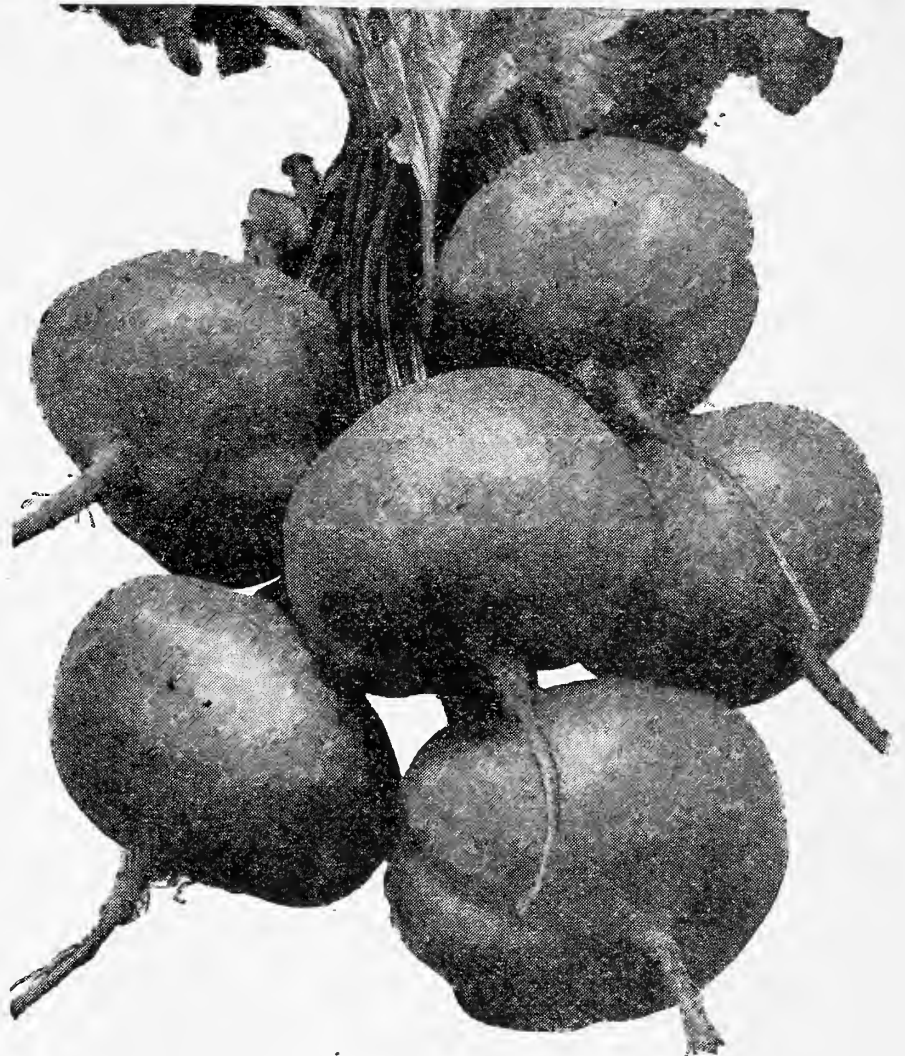
**BEET**

The best results are obtained on a deep, rich, sandy loam. If wanted very early, sow such sorts as Crosby's Egyptian and Detroit Dark Red in hotbeds and transplant, cutting off the outer leaves. For general crop sow in freshly prepared soil as soon as the ground will permit, in rows eighteen inches apart, covering about an inch deep and pressing the soil firmly over the seed. When the plants are well established thin four to six inches apart in the row.

For winter use the turnip varieties may be sown in June or July so as to mature late in the season. The roots are stored in a cellar and covered with sand to prevent wilting, or they may be kept outdoors in pits such as are used for apples and potatoes.

**EXTRA EARLY EGYPTIAN BLOOD TURNIP**—This is the best variety for forcing. It is also excellent for first early crop outdoors, being very early, with small tops. The leaves are dark green, shaded and veined with dark red. The roots are very dark red, moderately thick, a little rounded on top, distinctly flat on the bottom, and about two inches in diameter when mature. The flesh is dark purplish red, zoned lighter shade; firm, crisp and tender.

**CROSBY'S EGYPTIAN**—This very desirable table beet does not closely resemble the original Egyptian except in its extreme earliness. The tops are small. The roots are flattened globe shaped and very smooth. The exterior color of the root is bright red. The flesh of our strain is bright vermillion-red, zoned with a lighter shade, very sweet, tender and of excellent quality. This is one of the best for early planting outdoors and is much used for bunching. It becomes fit for use earlier than any other variety but it is not so well suited as Extra Early Egyptian Blood Turnip for forcing in hotbeds or for transplanting. Our stock is exceptionally uniform in shape and color, and is earlier than the older strains which are similar in shape but show the purplish red color.



CROSBY'S EGYPTIAN BEET

**DETROIT DARK RED**—We believe this is the best beet for the market and home garden, and on account of its uniformly deep rich color the most desirable for canning. The tops are small and upright in growth. The leaves are dark green, shaded with red. The roots are medium sized, globular or nearly round, very smooth and of dark blood red color. The flesh is deep vermillion red, zoned with a lighter shade of the same color. The variety is very desirable for bunching.

**EARLY ECLIPSE**—An early beet, especially desirable for the home garden and used for bunching. The tops are small. The roots are bright deep red, smooth, round or slightly top shaped with a small top and small collar. The flesh is bright red, zoned with pinkish white, very sweet, crisp and tender, especially when young.

**EDMAND'S EARLY BLOOD TURNIP**—A desirable second early market beet, suitable also for the home garden. Tops short, rather spreading; ribs and leaf stalks dark red, interior color purplish red with little zoning; crisp, tender, sweet and an excellent keeper.

**EARLY BLOOD TURNIP (Improved)**—An early selected stock of Blood Turnip, having larger, coarser tops and root than Detroit Dark Red and requiring a longer time to mature. The roots are dark red and nearly round or slightly flattened. The flesh is deep red, zoned with lighter shade, sweet, crisp and tender. This is an excellent market and home garden sort for summer and autumn use.

**LONG DARK BLOOD**—A standard long late variety of very good quality which keeps well through the winter. The roots are smooth, rather slender, growing largely under ground, with few or no side roots, and when mature about eight or ten inches in length, sometimes longer when grown in deep, well-dug and well-manured soil. The exterior color of the roots is very dark purple, almost black. Flesh is dark red, tender and sweet. It is an excellent sort for pickles.

	Oz.	4 Ozs.	$\frac{1}{2}$ Lb.	1 Lb.
Extra Early Egyptian Blood Turnip..	.10	.25	.40	.75
Crosby's Egyptian.....	.10	.25	.40	.75
Detroit Dark Red.....	.10	.25	.40	.75
Early Eclipse.....	.10	.25	.40	.75
Edmand's Early Blood Turnip.....	.10	.25	.40	.75
Early Blood Turnip.....	.10	.25	.40	.75
Long Dark Blood.....	.10	.25	.40	.75

## SWISS CHARD

**SEA KALE BEET**—This kind of beet is grown exclusively for the numerous, fleshy, tender leaves and leaf stalks, which are superior to those of other beets for use as greens. Later in the season the wax-like stems are cooked like asparagus or are pickled. This variety we offer has large, broad, undulated leaves of attractive yellowish green color, and very large, broad white stalks and midribs or chards. It is well worthy of a place in the home garden as well as for market use. Swiss Chard is sometimes called Leaf Beet, Spanish Beet and Silver Beet. Price—Oz., 10c; 4 Ozs., 30c; ½ Lb., 50c; Lb., 80c.

## MANGEL WURZEL

The Mangel Wurzel, also called Mangel, Cattle Beet and Field Beet, may be grown in almost any soil, but deep loams are necessary for heavy yields of the long varieties. When well grown the roots give an immense yield of very valuable food for stock. Plant early in spring in drills two to two and one-half feet apart, and about one inch apart in the row, covering with about one and one-half inches of fine soil firmly pressed down. Cultivate frequently. When about three inches high begin thinning and continue at intervals until the roots stand about ten inches apart.

**GIANT FEEDING SUGAR BEET OR HALF SUGAR MANGEL**—Desirable for stock feeding, affording not only a very large crop much easier to harvest than other sorts, but also having higher nutritive value, being especially rich in sugar. The roots are light bronze green above ground, grayish white below, with white flesh. On account of growing partly out of the ground and the long ovoid shape the crop can be harvested and stored easily and at less expense than any other crop.

**IMPROVED YELLOW OVOID**—Yellow-fleshed, very productive and is sweet and fine-grained; fine keeper.

**IMPROVED MAMMOTH LONG RED**—The roots are very large, uniformly straight and well formed and comparatively thicker than the common sort. The flesh is white tinged with rose. This strain, under careful culture, is enormously productive. Our stock will produce the largest and finest roots which can be grown for feeding stock and is vastly superior to many strains offered under other names, such as Noribtan Giant, Colossal, Monarch, etc.

**IDEAL MANGEL BEET**—The illustration shows exact type of the Ideal Mangel. It is practically the same size at top and bottom, and grows two-thirds out of ground. Growing so much above ground makes it very easy to harvest, even on hard soils. Don't take a substitute for it is the most wonderful cattle beet in existence.



IDEAL MANGEL

**GOLDEN TANKARD**—The tops are comparatively small, with the leaf, stalks and veins distinctly tinged with yellow. The neck is small. The roots are large, ovoid, but with bottom usually of larger diameter than top, light gray above ground, deep orange below. The flesh is yellow, zoned with white.

**YELLOW LEVIATHAN**—The roots of this exceedingly productive sort grow about one-half out of the ground and very easily harvested. In shape they are long fusiform, or spindle shaped, tapering from the middle to each end, and have a small collar. The color is light gray tinged with brown above ground, yellow below. The flesh is white, sometimes slightly tinged with yellow. The tops are green and comparatively small. The roots have less tendency to become woody than most sorts.

**YELLOW ECKENDORF**—Light yellow. Grows well above ground, and a very heavy yielder.

	Oz.	¼ lb.	Lb.
Giant Feeding Sugar Beet, or Half Sugar Mangel .....	.10	.25	.50
Improved Yellow Ovoid .....	.10	.25	.50
Improved Mammoth Long Red.....	.10	.25	.50
Ideal Mangel Beet.....	.10	.25	.60
Golden Tankard.....	.10	.25	.50
Yellow Leviathan.....	.10	.25	.50
Yellow Eckendorf.....	.10	.25	.50

## BROCCOLI

The heads resemble somewhat a coarse cauliflower and the culture is the same in all essentials as for that vegetable. Broccoli is well adapted only to those sections where the season is long, cool and rather moist. One of the most valuable features is that it withstands greater extremes of temperature than cauliflower.

### EARLY LARGE WHITE FRENCH

—This is considered the best sort for most sections. The plants are very hardy, vigorous and easily grown. The heads are white, compact, hard and of good quality. Price—Pkt., 15c; Oz., 60c; 4 Ozs., \$1.75; ½ Lb., \$3.00; Lb., \$6.00.

## BRUSSELS SPROUTS

Used in the fall and early winter and by some considered more tender and delicious than any cabbage. Plant resembles the cabbage, the edible part being the numerous very small heads or sprouts an inch or two in diameter formed on the stalk at each leaf joint. The culture is the same in all essentials as for cabbage, except the leaves should be broken down in the fall to give the little heads more room to grow.

**IMPROVED HALF DWARF**—This favorite Paris market sort is probably the most useful variety. The plants are half dwarf, growing about one and one-half to two and one-half feet. They are very hardy and produce compact, rounded, grayish green sprouts of good size and fine quality. Price—Pkt., 10c; Oz., 25c; 4 Ozs., 75c; ½ Lb., \$1.25; Lb., \$2.50.

## CABBAGE

For many years cabbage seed has been a leading specialty with us. Our cabbage seeds are all grown from approved stock seeds. We believe there is no seed that is more reliable, nor any that can be more implicitly depended upon to give planters uniformly satisfactory results.

The requisites for complete success with cabbage are: First, good seed. In this crop the quality of the seed used is of the greatest importance. Second, rich, well prepared ground. A heavy, moist and rich loam is most suitable. Third, frequent and thorough cultivation. The ground should be highly manured and worked deep. Cabbage is grown all over the country and specific directions regarding the time and methods of planting applicable to all localities cannot be given.

The late autumn and winter varieties may be sown from the middle to the last of spring and transplanted when four to six inches high. If the weather and soil are dry the late sowings should not be shaded or crowded in the seed-bed, or they will run up weak and slender and will not endure transplanting well. Cabbages should be hoed every week and the ground stirred as they advance in growth, drawing up a little earth to the plants each time until they begin to head, when they should be thoroughly cultivated and left to mature. Loosening the roots will sometimes retard the bursting of full grown heads.



BRUSSELS SPROUTS



## CABBAGE—Continued

Of late years many crops of early cabbages have been destroyed by maggots at the roots. An effective remedy seems to be to remove the earth carefully from around the stem so as to form a funnel-shaped cup and apply Zenoleum, Sanax Dip, or some similar preparation, diluted at the rate of one part to eighty parts of water. Apply one pint to a plant. A well known remedy is to apply an emulsion of kerosene which may be made as follows: Add one quart of kerosene oil to two quarts of boiling fish oil soap (whale oil soap), soft soap or any cheap soap which has been thinned to the consistency of cream. Stir the oil thoroughly by churning or other method until it has united with the soap and forms a cream-like substance. Then dilute with five times as much water and apply once a week. A preventive for maggots is to spray on forcibly a carbolic acid emulsion diluted with thirty parts of water, applied the day after the cabbage plants are transplanted, and repeated several times at intervals of a week.



COPENHAGEN MARKET CABBAGE

The cabbage worms which destroy the leaves and heads later may be killed by dusting with pyrethrum powder, slug shot or Paris green. The last two are poisonous and should not be used in large quantities, or late in the season; however, should their use be necessary, care should be taken to remove the outside leaves before the heads are used. If the disease called club-root should get a foothold, do not plant the land with any of the cabbage family for a year or two. This is usually an effective remedy.

### FIRST EARLY SORTS

**COPENHAGEN MARKET**—The earliest large round or flat-head sort. The ripening is early and uniform, maturing at one time and almost with Early Jersey Wakefield. Considering its early season, the heads are remarkably large, averaging the earliest of the pointed head type of cabbage for the market and home garden. Most gardeners depend upon it short stem.

**GOLDEN ACRE**—The earliest cabbage of all, maturing a week earlier than Early Jersey Wakefield and fully two weeks ahead of Copenhagen Market. Heads round, of medium size and firm. One of the best varieties for the early garden or market.

**EARLY JERSEY WAKEFIELD**—This most excellent variety is the earliest of the pointed-head type cabbage for the market and home garden. Most gardeners depend upon it for the bulk of their extra early crop. The plants are exceedingly hardy, not only in resisting cold but other unfavorable conditions. They are compact and erect or very slightly spreading, with few outer leaves, which are smooth, thick, nearly oval and deep green. The stem is short. The heads are of medium size, very solid, uniformly pointed and of excellent quality.

**EARLY FLAT DUTCH**—Earlier and heads somewhat smaller than Late Flat Dutch; a good, short-stemmed second early.

**GLORY OF ENKHUIZEN**—This second early variety is very sure heading and of excellent quality. The plants are of vigorous growth, with large, rather spreading outer leaves which are noticeably curved and frilled. The heads are globular or very nearly round, very solid and of large size for so early a variety.

**ALL HEAD EARLY**—This excellent second early market sort produces heads that are very large for so early a cabbage and of very good quality. It is desirable not only for general spring planting but by planting late it can be used as a fall and early winter cabbage. The variety is well adapted for kraut. The plants are compact, with few outer leaves, which are comparatively smooth and rather thick, being nearly entire at edges and only slightly waved. The stem is short. The heads are solid and flat but very deep. Our strain is of special value.

**FOTTLER'S IMPROVED BRUNSWICK**—An early short stemmed Drumhead of large size, following closely the Jersey Wakefield in season; one of the finest varieties.

**SUCCESSION**—One of the best of cabbages; heads very large and somewhat flat; ten days later than Early Summer.

**ALL SEASONS**—A very desirable large cabbage of intermediate season, adapted for autumn as well as late summer use, and considered one of the most desirable for kraut. The plants are very vigorous and sure heading, with few outer leaves which are large and fairly or slightly waved. The heads are nearly round or somewhat flattened, very solid and of excellent quality. It is remarkable for its ability to stand the hot sun and dry weather, remaining an exceptionally long time in condition for use. Sometimes sold as Vandergaw.

**THE WARREN OR IMPROVED STONE MASON**—This intermediate or main crop variety produces large, flattened but deep heads of most excellent quality. The plants are distinctively compact with only a moderate number of leaves which are rather light green, thick, rounded, entire and slightly blistered. The heads are large, flattened but deep, oval on the top, tender but compact and very solid. It is an especially desirable or early winter cabbage where quality is desired.

**VOLGA**—A main crop sort, very desirable where large, uniformly round heads with short stem and plants of compact growth are wanted. This sort matures very early for a variety furnishing such large heads of excellent shape. The outer leaves are thick, long oval and rather smooth. The variety is hardy, usually very solid and a good keeper.

**CHINESE IMPROVED OR PE-TSAI**—The strain we offer resembles when well grown Cos Lettuce rather than Cabbage. It is often called Celery Cabbage on the market.

The leaves when young are crimped, of light green color and appear like smooth leaved mustard but with much broader and heavier midribs. The plant as it matures becomes more upright and forms heads much like Cos Lettuce. The inner leaves blanch an attractive light yellow or creamy white with very white midribs. It is of distinctive flavor, very mild and pleasant. It is served as a salad like lettuce or cooked like asparagus.

Sow in this latitude after July 1st at the same time as turnips. Early plantings of Pe-Tsai run quickly to seed in hot weather. Sow in drills fourteen to twenty inches apart and thin two or three times; or if grown for the market start in boxes and transplant like late cabbage.

**DANISH BALL HEAD**—Very hardy, sure heading, very solid, of good quality and as one of the very best keepers this is particularly desirable for distant markets or for late spring use. The plants are vigorous and compact, with stem of medium length. They are exceedingly hardy in resisting cold and stand dry weather well. The leaves are distinctly upright in growth, few but rather large, long and narrow, thick, smooth, bluish green covered with whitish bloom. The heads are medium sized, round, exceptionally solid and stand shipment better than any other late sort. Our strain of Hollander is shorter stemmed and produces heads generally larger than other stocks.



DANISH BALL HEAD

CABBAGE—Continued

**MAMMOTH ROCK RED**—The largest and surest heading red cabbage. The plants are large and vigorous, with medium length stem and spreading outer leaves which are dark green with red veining. The heads are late maturing, large, round, very solid and of very attractive deep red color. The variety is much used for cold slaw and pickling.

**DRUMHEAD SAVOY CABBAGE**—This is the largest heading and best all around Savoy. Plants are strong in growth, having a number of center leaves growing closely about the large solid heads of finest flavor.

**IMPROVED AMERICAN SAVOY**—The best of the main crop and late Savoys for home or market use. The plants are vigorous, of medium size, with rather short stem, and are very sure heading. The outer leaves are medium large, thick, fleshy and densely and uniformly crumpled. The heads are large, round, fairly solid, sweet and tender. The quality is superior to sorts that have been offered as Perfection, Green Globe or Drumhead Savoy.

**PREMIUM LATE FLAT DUTCH**—This strain is the result of much care on our part to develop and maintain the good qualities which have made this sort so popular. The plants are very hardy, comparatively slow growing but very sure heading; stem rather short. The plants are exceptionally vigorous, with very large, broad, spreading outer leaves which are moderately smooth or very slightly waxed and slightly blistered. The heads are uniformly large, often very large, flat but deep, distinctly flattened on top, and of excellent quality. This is considered by many as the standard very large late cabbage for home garden and market. It is an excellent keeper.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.	5-Lb. Lots
Golden Acre.....	.15	1.00	3.00	5.25	10.00	
Copenhagen Market.....	.10	.30	1.00	1.50	3.00	
Early Jersey Wakefield..	.10	.25	.75	1.25	2.50	
Early Flat Dutch.....	.10	.25	.75	1.25	2.25	
Glory of Enkhuizen.....	.10	.25	.75	1.50	3.00	
All Head Early.....	.10	.25	.75	1.25	2.25	
Fottler's Improved Brunswick .....	.10	.25	.75	1.25	2.25	
Succession .....	.10	.25	.75	1.25	2.25	
All Seasons.....	.10	.20	.60	1.00	2.00	
The Warren, or Im- proved Stone Mason...	.10	.25	.75	1.25	2.25	
Volga .....	.10	.25	.75	1.25	2.50	
Chinese Improved or Pe- Tsai .....	.10	.30	1.00	1.50	3.00	
Danish Ball Head.....	.10	.25	.75	1.25	2.25	1.75 lb.
Mammoth Rock Red.....	.10	.25	.75	1.25	2.50	
Drumhead Savoy Cab- bage .....	.10	.25	.80	1.40	2.75	
Improved American Savoy .....	.10	.25	.80	1.40	2.75	
Premium Late Flat Dutch .....	.10	.25	.75	1.25	2.25	

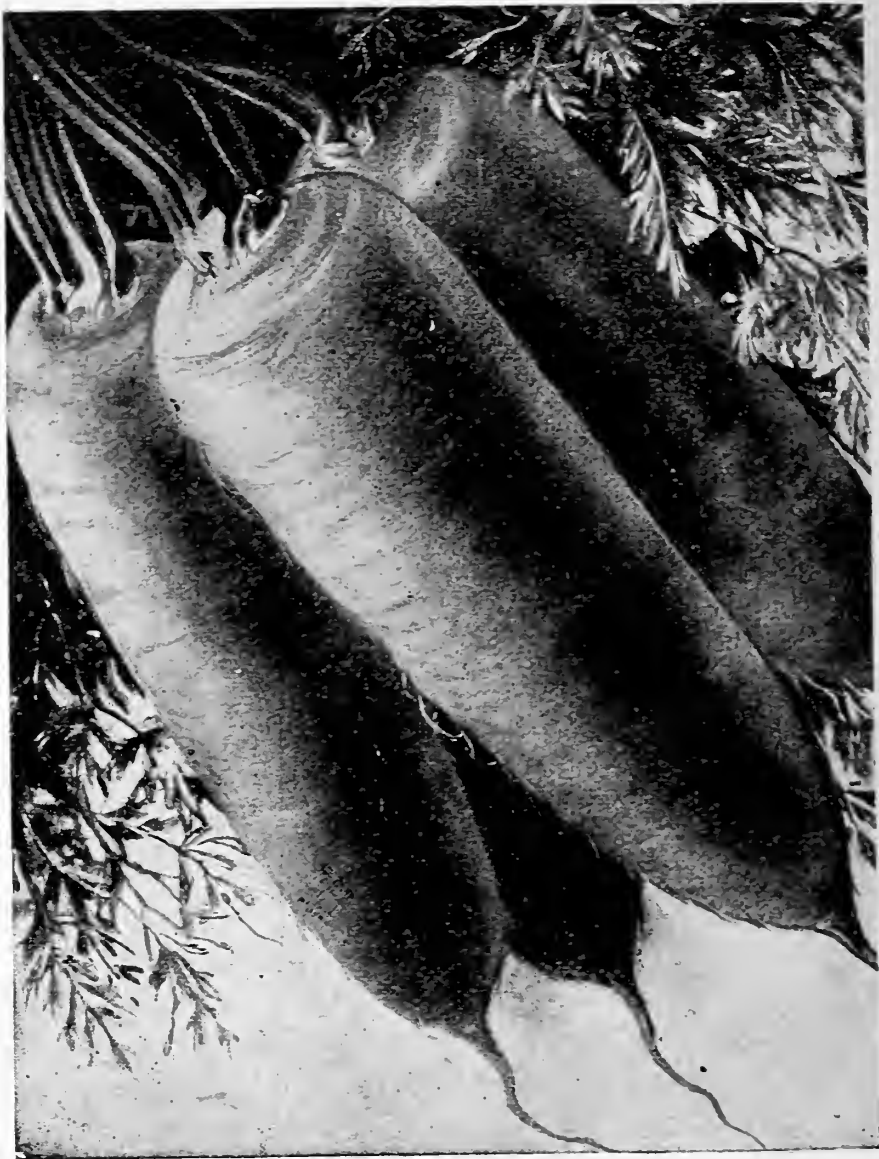
CARROT

While a sandy loam made rich by manuring the previous year is the best soil for the carrot, any good land if thoroughly and deeply worked will produce satisfactory crops. It is advisable to sow as early in the spring as the ground is fit to work, though good crops may be grown from sowings as late as June 15. For table use sow the smaller kinds early in rows sixteen to eighteen inches apart. For field culture sow in drills eighteen to twenty-four inches apart, using from one and one-half to three pounds of seed to the acre. Cover one-half to one inch deep and see to it that the soil is pressed firmly above the seed. As soon as the plants appear, use the cultivator or wheel hoe. Thin two to six inches apart in the row, according to the size of the variety.

**DANVERS**—A half long orange carrot, grown largely on account of its great productiveness and adaptability to all classes of soil. It is a desirable second early carrot for the home garden and is also suitable for field culture. The tops are of medium size. The mature roots are of medium length, six to eight inches long, tapering uniformly to a blunt point. The flesh is deep orange, tender and of good quality. Although the roots of this variety at maturity are comparatively short they often produce as large a bulk as the longer field sorts and are more easily harvested.

**EARLY SCARLET HORN**—This variety is excellent for early planting out of doors for the table. The tops are small. The roots are orange-red, about three inches long, top shaped but tapering abruptly to a small tap.

**CHANTENAY**—A most excellent, medium early, half long variety. It is one of the best in quality for the market and home garden, while its great productiveness and the ease with



DANVERS HALF LONG CARROT

which it can be harvested make it desirable as a field sort. The tops are medium sized with small neck. The mature roots are thick, five and one-half to six inches in length, uniformly half long or stump rooted but tapering slightly, smooth, deep orange-red in color. The flesh is very crisp and tender. Although a medium early sort the roots are suitable for use nearly as early as any. The variety is extensively used for bunching.

**GUERANDE OR OX HEART**—Especially desirable for soil so hard and stiff that longer rooted sorts would not thrive in it. The tops are comparatively small. The mature roots are four and one-half to five inches long, very thick, ending abruptly in a small tap root. The flesh is bright orange, fine grained and sweet. When young the roots are desirable for table use as a medium early carrot and when mature they are equally good for stock feeding.

**IMPROVED LONG ORANGE**—The roots of the improved strains of this variety we offer are very deep orange, long and comparatively thick, often twelve inches in length and three inches in diameter at the crown, tapering regularly to a point. The tops are rather large. This intermediate to late maturing sort is suitable for table use as well as stock feeding, combining great productiveness with uniform shape where grown in light, deep, rich soil. When of size suitable for the table, the roots are tender and of good quality.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Danvers .....	.10	.15	.30	.50	1.00
Early Scarlet Horn.....	.10	.15	.30	.50	1.00
Chantenay .....	.10	.15	.30	.50	1.00
Guerande, or Ox Heart.....	.10	.15	.30	.45	.85
Improved Long Orange.....	.10	.15	.30	.50	1.00

CAULIFLOWER

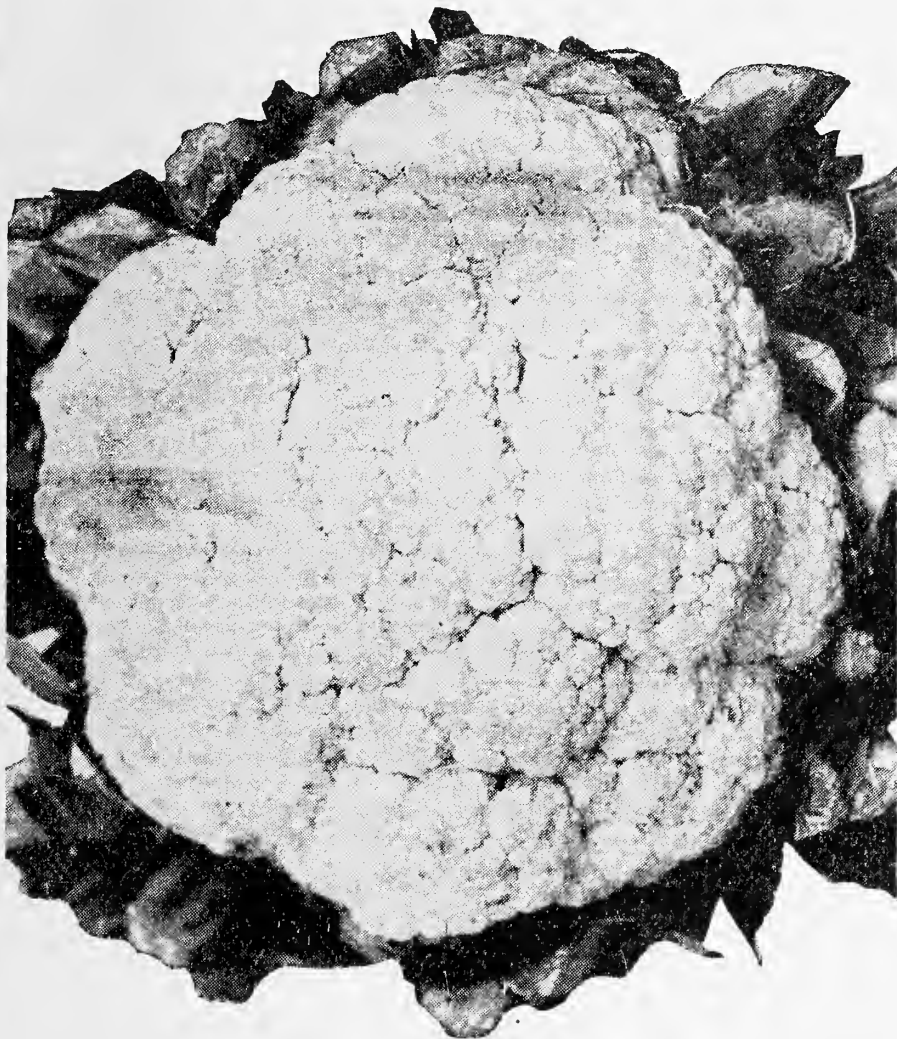
Cauliflower, although one of the most delicious vegetables, is but little grown except by professional gardeners because of the erroneous notion that it is so difficult to grow that only skilled gardeners can produce it. Anyone will be reasonably sure of success with this most desirable vegetable if the cultural directions given below are carefully followed.

For spring and early summer crop, sow in March or early in April in hotbed. If soil is not too wet, seed should be thoroughly pressed into the ground after sowing. This insures quick germination. Cover seed with one-half inch of fine soil firmly pressed down. Transplant to cold-frame when sufficiently large to handle. As soon as danger of hard freezing is over set in the open ground in rows two and one-half to three feet apart and eighteen inches apart in the row. The plants



## CAULIFLOWER—Continued

will endure a light frost. The soil for cauliflower should be like that for cabbage, but it is better if made richer than is ordinarily used for that crop. Plenty of good manure must be well incorporated with the soil and the latter be brought into the highest state of tilth. No application, however, can be more necessary or more useful than that of cultivator and hoe.



SNOWBALL CAULIFLOWER

For late crop, sow at same time as for late cabbage and treat in the same manner. It should be borne in mind that cauliflower will not head up well in hot, dry weather, and hence the sowings need to be so timed as to bring the heads to maturity either before the hot summer weather sets in or not until the cooler weather of the fall. If it receives at this time a liberal supply of water, the size and quality of the heads will be greatly improved. After the head begins to form, draw the leaves over and tie them together to protect it from the sun and to keep it white. The heads should be cut for use while the "curd" is compact and hard, as they soon become much impaired in quality and appearance after they open and separate into branches.

Of the enemies of the crop, none is more formidable than the cabbage root maggot. This seems to have a special liking for cauliflower. Probably the best and most surely effective protective measure is enveloping each plant with a tight fitting collar of tarred felt. Plant lice are also serious pests of this crop. Effective remedies are dusting with fine tobacco dust, or spraying with strong tobacco tea or kerosene emulsion.

All the cauliflower seed we offer is produced by the most experienced growers in Europe, in such localities as are best suited to its proper development and the greatest care is taken to save seed from perfectly developed plants only.

**EARLY SNOWBALL**—Unquestionably the earliest maturing strain of the true short leaved Snowball type of cauliflower. It is admirably adapted for forcing or wintering over for early crop and is the most popular sort for those purposes, also one of the best for late summer and fall crop. Early Snowball is, moreover, a most desirable sort for the home garden. The plants are compact, with few short outside leaves, and are well suited for close planting. The heads are of medium to large size, compact, round, very white and curd-like and are developed earlier than those of any other sort.

**EXTRA EARLY DWARF ERFURT**—A remarkably sure heading early cauliflower. It is of dwarf habit with short outside leaves and is similar in most respects to Early Snowball, and nearly as early. The heads when ready for market are of medium to large size. The curd is white, exceptionally deep and of finest quality. It will give excellent results either in the home garden or for market use and is superior to most seed sold at higher prices. When extreme earliness is not the greatest consideration we recommend this strain after having proven it superior to many stocks offered as Snowball.

**DANISH GIANT, DRY WEATHER**—An excellent second early variety especially adapted for growing in the open ground. Recommended for localities subject to long, dry seasons, as it will often produce heads of fine quality under these conditions

while other sorts are total failures. Heads of medium to large size, very solid, pure white and of fine quality.

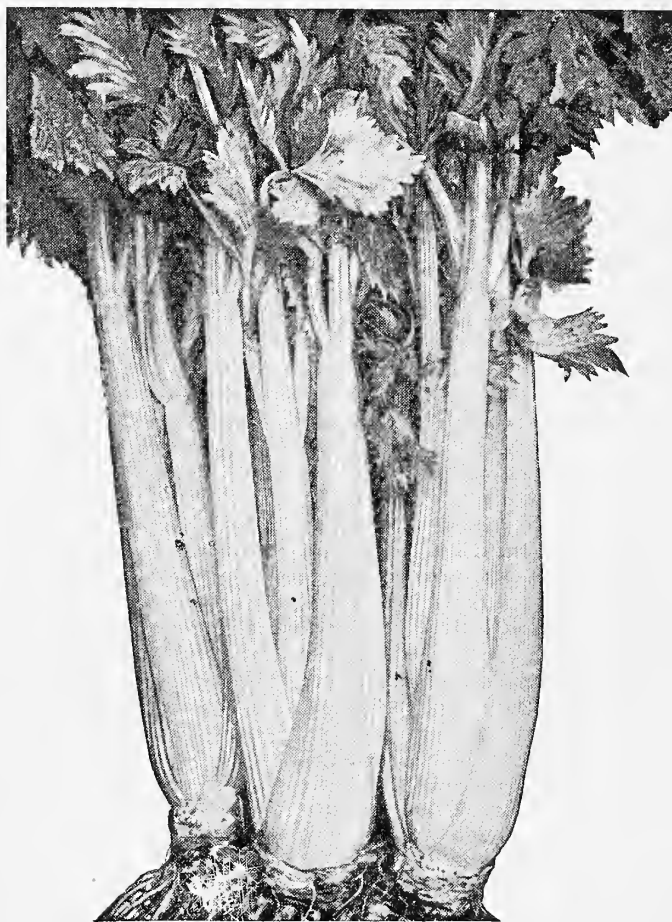
	Pkt.	¼ Oz.	Oz.
Early Snowball.....	.25	.75	2.00
Extra Early Dwarf Erfurt.....	.25	.75	2.00
Danish Giant, Dry Weather.....	.25	.75	2.00

## CELERY

Sow the seed (which is slow to germinate) from about February 20 to April 20 in shallow boxes indoors or sow in a finely prepared seed bed out of doors in April in straight rows so that the small plants may be kept free from weeds. See to it that the seed is not covered too deep and that the bed is kept moist, almost wet, until the seeds germinate, as plenty of moisture is essential to get a satisfactory growth. The seed will not germinate well if planted in a hotbed or where subjected to a temperature above 60° F. When the plants are one to two inches high, thin out and transplant so that they may stand two or three inches apart each way. When they are four inches high, cut off the tops, which will cause the plants to grow stocky. Plants are usually set out when about five inches high. It is well to cut off the lower half of the roots before transplanting.

The crop is usually made to succeed some earlier one, but in order to grow good celery the soil must be made as rich as possible, the essentials to success being very rich soil and plenty of water. If good plants are used, they may be set out as late as the middle of August, but the best results are usually obtained from setting about the middle of June or first of July. The most desirable time will depend upon local climate and is that which will bring the plants to maturity during cool, moist weather. In setting, prepare broad trenches about six inches deep and four to six feet apart, in which the plants should be set six inches apart, cutting off the outer leaves and pressing the soil firmly about the roots. The compacting of the soil excludes the air from the roots until new rootlets are started. The only care now necessary for about six weeks is to keep the plants free from weeds by frequent cultivation.

When the plants are nearly full grown they should be "handled," which is done by gathering the leaves together while the earth is drawn about the plant to one-third its height, taking care that none of it falls between the leaves, as it would be likely to cause them to rust or rot. After a few days draw more earth about them and repeat the process every few days until only the tops of the leaves are visible. Or it may be blanched by pressing the leaves together with two wide boards held in place by stakes or by wire hooks at the top. This is the method commonly used by market gardeners and the rows need to be only about three feet apart, but celery so blanched is not so good in quality and is more likely to become pithy than that blanched with earth. Care should be taken that the plants are not disturbed while they are wet or the ground is damp; to do so increases the liability to injury from rust. A part of the crop may be simply "handled" and then at the approach of severe freezing weather taken up and set out compactly in a dark cellar or an unused cold-frame, where the temperature can be kept just above the freezing point and it will then gradually blanch so that it may be used throughout



GOLDEN SELF-BLANCHING CELERY

## CELERY—Continued

the winter. Should the plants begin to wilt, water the roots without wetting the stalks or leaves and they will revive again.

**GOLDEN YELLOW SELF-BLANCHING**—This is the standard celery for early use. It is in condition as early in the fall as any and we have yet to find a strain better in quality and appearance than our stock of Golden Yellow Self-Blanching. Critical gardeners generally depend upon our stock to produce their finest early celery. It is excellent for the home garden. The plants are of medium size, compact and stocky, with yellowish green foliage. As they mature the inner stems and leaves turn beautiful golden yellow so that blanching is effected at a minimum expenditure of time and labor. Its handsome color, crispness, tenderness, freedom from stringiness, and fine nutty flavor have established it as a superior first early sort.

**EASY BLANCHING**—A recent introduction of merit. It is a vigorous grower, of medium dwarf height, stalks thick, quality excellent. A most desirable variety for the amateur, as it blanches easily and is one of the best keepers. Second early, can be grown for winter and spring use.

**WHITE PLUME**—A handsome, very early variety. The leaves are light, bright green at base, shading nearly white at tips. As the plants mature the inner stems and leaves turn white and require to be earthed up but a short time before they are in condition for use. Although very attractive, we do not think that it compares favorably with the Golden Yellow Self-Blanching either in flavor or solidity, or that it will remain in condition for use as long. White Plume has been much in demand as a market sort on account of its very attractive appearance and requiring a very short time for blanching. It is suitable for the home garden.



WHITE PLUME CELERY

**GIANT PASCAL**—This is a green leaved variety developed from the Golden Yellow Self-Blanching and we recommend it as being of the very best quality for fall and early winter use for the home garden and market. It blanches to a beautiful yellowish white color, is very solid and crisp, and of a fine nutty flavor. The stalks are of medium height, very thick, the upper portion nearly round but broadening and flattening toward the base. With high culture this variety will give splendid satisfaction as a large growing sort for fall and winter use. In the south it is prized more than almost any other kind.

**COLUMBIA**—An early maturing sort of most excellent shape and quality for the home market and private garden. It is extensively grown for shipment. The plant is of medium height but very stocky and heavy. The stalks are thick, almost round, resembling in shape those of Giant Pascal. The color, however, has in it more of the rich yellow tint of Golden Yellow Self-Blanching, which variety it resembles very much in appearance when trimmed and bunched for the market. The outer foliage of the plant when growing is rather light green with tinge of yellow, becoming when blanched yellow with tinge of green. The heart when properly blanched changes from yellow with tinge of green to a light golden yellow.

low. In season it follows in close succession Golden Yellow Self-Blanching. We consider it unsurpassed in its rich nutty flavor.

	Pkt.	½ Oz.	Oz.	Lb.
Golden Yellow Self-Blanching.....	.15	.30	.60	6.00
Easy Blanching.....	.15	.30	.60	6.00
White Plume.....	.10	.15	.30	2.75
Giant Pascal.....	.10	.15	.30	2.75
Columbia .....	.10	.25	.50	4.50

## CELERIC or TURNIP ROOTED CELERY

In this kind of celery the roots have been developed by cultivation and not the leaf-stalks. The roots, which are the edible portion, keep well for winter use and are excellent for soups and stews. They are also cooked and sliced as a salad.

Sow seed at the same season and give the same treatment as common celery. Transplant to moist, rich soil, in rows two feet apart and six inches apart in row. Give thorough culture. It is not necessary to earth up or "handle" the plants. After the roots have attained a diameter of two inches they are fit for use.

To keep through the winter, pack in damp earth or sand and put in the cellar or leave out of doors, covering with earth and straw like beets and carrots.

**LARGE SMOOTH PRAGUE**—An improved variety of turnip rooted celery, producing roots of nearly globular shape and comparatively smooth surface. Price—Pkt., 10c; ½ Oz., 15c; Oz., 30c; Lb., \$2.75.

## CHERVIL

A hardy annual with aromatic leaves somewhat resembling parsley and by many considered superior to it in flavor. The young leaves are used in soups and for flavoring and garnishing meats and vegetables.

Sow in early spring in rich, well prepared soil. The seed is slow to germinate, sometimes remaining in the earth four or five weeks before the plants appear. When the plants are about two inches high, transplant or thin to about one foot apart. They are ready for use in six to ten weeks from sowing.

**CURLED**—This very fine curled, double sort, is much superior to the plain variety, being early maturing and handsomer and having fully as fine fragrance and flavor. Price—Pkt., 10c; Oz., 25c; 4 Oz., 75c; ½ Lb., \$1.00; Lb., \$2.00.

## CHICORY

**LARGE ROOTED OR COFFEE**—The dried and prepared roots are much used as a substitute for coffee, and the young leaves may be used as a spring salad. Our stock is the improved type, with very much larger, smoother, whiter and proportionately shorter roots than the old kind.

Sow seed as early in spring as the ground can be prepared, in rather light, moderately rich soil, in drills two to two and one-half feet apart for either garden or field culture. When the plants are sufficiently large, thin to six inches apart in the row and cultivate well. Price—Pkt., 10c; Oz., 25c; 4 Oz., 75c; ½ Lb., \$1.00; Lb., \$2.00.

## CHIVES

**ALLIUM SCHOENOPRASUM**—An onion-like plant used as a salad and for flavoring soups. It also makes an excellent ornamental garden bed edging which may be cut, a new growth of leaves appearing soon after each cutting. The plants grow about ten inches high. One sowing will answer for about three years. Price—Pkt., 10c; Oz., 75c.

## COLLARDS

This is a tall, loose leaved cabbage-like or kale-like plant grown throughout the south and known in different sections as "Cole," "Colewort," or simply "Greens." It is extensively used for table as well as for stock feeding in the south, where it continues in growth and is usable throughout the entire winter. Collards usually succeed in locations where cabbage can not be grown to perfection.

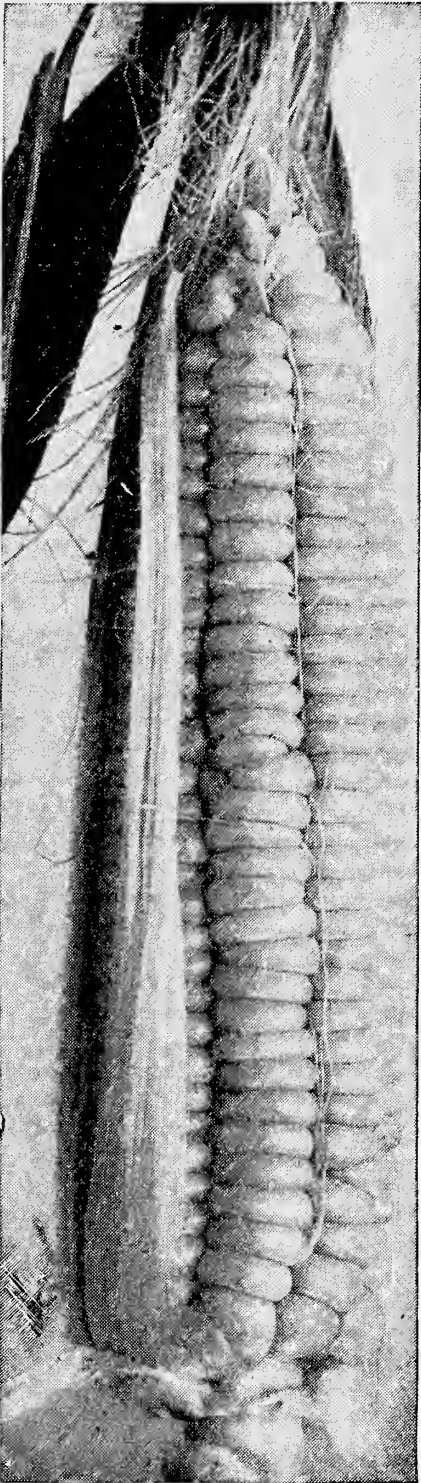
Sow the seed thickly in drills, in rich ground, transplanting when about four inches high; or sow in drills where the plants are to remain and when well started thin to two or three feet apart in the row. In the south, seed may be sown from January to May and from August to October.

**GEORGIA, SOUTHERN OR CREOLE**—This is the white or green stemmed variety, growing two to three feet high and forming a large, loose, open head or cluster of leaves with a rather long stem. A frost, if not too severe, will improve rather than injure the quality of the leaves. Price—Pkt., 10c; Oz., 15c; 4 Oz., 40c; ½ Lb., 65c; Lb., \$1.25.



## CORN

### SWEET OR TABLE VARIETIES



GOLDEN BANTAM

A rich, warm, alluvial soil is the best, but excellent sweet corn can be raised on any good, ordinary soil, if it is deeply and thoroughly worked before planting. In the north sweet corn may be planted as early as can be done without risking great loss from frosts or from rotting of the seed in the soil, but with the main crop varieties especially, it is well to wait until the ground has become warm as the sweeter varieties are more sensitive to cold and wet than field corn or varieties of inferior quality.

If planted in rows, make the rows three to four feet apart, according to the vigor of growth of the variety, and place the seed twelve to sixteen inches apart in the row, covering one inch deep with fine soil firmly pressed down.

If planted in hills, make the hills for the early varieties three feet apart each way and plant four to six kernels to the hill. For the later sorts the hills should be three and one-half to four feet apart each way. Hoe frequently and when six inches high thin so as to leave three or four plants in the hill. Give frequent and thorough but shallow cultivation until the tassels appear.

**GOLDEN BANTAM**—This is an early sweet corn with golden yellow grain, very tender and of excellent quality. The ears are eight-rowed, six to seven inches long and of the medium size found most suitable for the table. The flavor is exceptionally rich and delicious. The stalks are four to five feet high. Our stock of this splendid home garden and market variety has been very carefully selected and is decidedly superior to much that is offered.

**MAMMOTH WHITE CORY**—We consider this one of the best extra early varieties for the market and

home garden. The ears are very large for so early a variety. The stalks are about four feet high, each generally bearing two large, finely shaped ears which become fit for use as early as those of any variety. They are twelve-rowed, six to seven inches long, very symmetrical and handsome, seldom with any opening between the rows at the base. The grain is large, broad, very white and of remarkably good quality for such an early sort.

**CROSBY'S EARLY**—A most excellent early variety of fine quality. The ears are five and one-half to six and one-half inches long, fourteen-rowed or more, with short nearly square grains which are very white, sweet and tender. The stalks are about four and one-half feet high. This variety is desirable for the home garden and market. It is a sort largely grown in Maine for canning.

**EARLY MINNESOTA**—This deservedly popular variety is one of the best second early sorts for the market and the home garden. The stalks are about six feet high, bearing one or two ears well covered with husks. The ears are about eight inches long, eight-rowed; kernels very broad, white, sweet and tender, not shrinking much in drying. By careful selection we have developed a stock of this standard variety which is remarkably uniform and in which all the good qualities that have made this sort so desirable are intensified.

**BLACK MEXICAN**—This corn, when very young, cooks remarkably white, but the ripe grain is bluish black. For home use we consider it the best second early sort where tenderness and sweetness are the qualities most desired. It does especially well as a second early variety in the south. The stalks are about six and one-half feet high. The ears are about eight inches long and are usually eight-rowed.

**EARLY EVERGREEN**—This excellent sort has proven its merit as the best evergreen strain that is distinctly earlier than Stowell's. The strain we offer has to a remarkable degree all the qualities that have made Stowell's Evergreen the leading main crop sweet corn for so long a time. The ears of Early Evergreen are about seven to seven and one-half inches long, with fourteen to twenty more or less irregular rows with very deep, white grain of the very best quality. Stalks about six and one-half to seven feet high. A very desirable main crop variety for home garden and market, and well adapted for canning.

**STOWELL'S EVERGREEN**—The standard main crop variety, much used for the home garden, market and canning. It is hardy and productive, very tender and sugary, remaining a long time in condition suitable for boiling. Our stock has been carefully grown and selected to avoid the tendency to a shorter grain and deterioration in the evergreen character of this best known of all late sorts. The ears about seven to eight inches long, fourteen to twenty rowed, with very white grain. The stalks are about seven and one-half feet high.

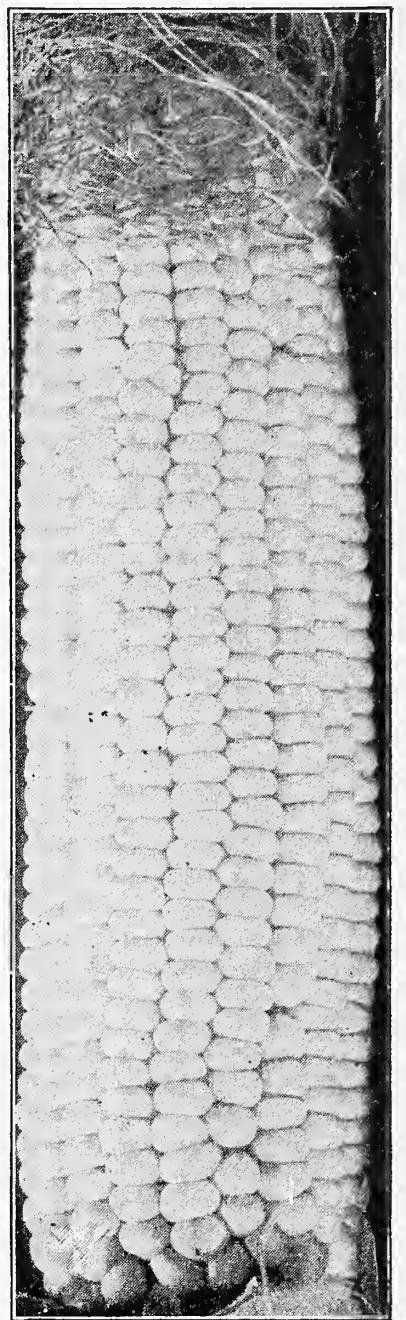
**COUNTRY GENTLEMAN**—This variety has a small, white cob, densely covered with irregular rows of very long slender, white grains of excellent quality. The ears are seven to nine inches long. The stalks are from six and one-half to seven feet high. It is well adapted for canning as well as the home garden and market, and many consider it as the best of the late varieties.

**CORY (Red Cob)**—An old, very early variety, with fair-sized ears, red grain and cob.

**PERRY'S HYBRID**—A little later than Minnesota; productive, usually two ears to the stalk; ears 8 inches long, 12-rowed and sweet, with often a pink or red cob.

**HICKOX IMPROVED**—The whitest of all sweet corn and of high quality; an extremely long ear, 12 to 14-rowed. A valuable canning sort.

	Pkt.	Pt.	Qt.	4 Qts.	Pk.	Bu.
Golden Bantam.....	.15	.35	.60	1.25	2.25	8.00
Mammoth White Cory.....	.15	.30	.50	1.25	2.50	8.00
Crosby's Early.....	.15	.30	.50	1.25	2.50	8.00
Early Minnesota.....	.15	.25	.40	1.25	2.00	7.00
Black Mexican.....	.15	.30	.50	1.50	2.50	8.00
Early Evergreen.....	.15	.30	.50	1.25	2.00	7.00
Stowell's Evergreen.....	.15	.30	.50	1.25	2.00	7.00
Country Gentleman.....	.15	.35	.65	1.25	2.25	9.00
Cory (Red Cob).....	.15	.30	.50	1.50	2.25	7.50
Perry's Hybrid.....	.15	.30	.50	1.25	2.25	7.50
Hickox Improved.....	.15	.30	.50	1.25	2.00	7.00



EARLY EVERGREEN

### CORN SALAD—Fetticus or Lamb's Lettuce

This is a small, quick-growing salad plant for late fall, winter and spring use. The leaves are used as a substitute for lettuce and spinach. During August and September sow the seed in shallow drills about one foot apart, covering with about one-fourth inch of fine soil firmly pressed down. On the approach of severe cold weather, cover with straw or coarse litter. The plants will also do well if the seed is sown very early in spring and, like most salad plants, are greatly improved if sown on very rich soil. The seed we offer is extra cleaned. Price—Pkt., 10c; Oz., 15c; 4 Ozs., 35c; Lb., \$1.25.

# CUCUMBER



ARLINGTON WHITE SPINE

This is one of the vegetables that can be grown to perfection by anyone who can control a few square yards of reasonably good soil that is fully exposed to the sun. Every family should be supplied from its own garden, since the fruit is so much better when gathered fresh from the vines as desired for use than it is in the more or less wilted condition in which it is found on the market.

In order to obtain the largest yield of cucumbers, the soil should be well enriched with well-rotted manure, but an abundance of good fruit can be raised on any rich garden soil. Plant the seed not over an inch deep in hills four to six feet apart each way, dropping fifteen to twenty seeds in a hill. After the plants begin to crowd and danger from the striped beetle is pretty well over, thin to three plants to the hill. Give frequent but shallow cultivation until the plants make runners so long that this is impracticable.

In field culture, plow furrows four feet apart and similar ones at right angles to the first. At each intersection drop a shovelful or more of well-rotted manure, which should be well mixed with the soil. Many growers omit every sixth or eighth row, thus forming paths for the distribution of manure and gathering the fruit.

In many sections, where earliness is very important, market gardeners start plants in boxes made like the ordinary berry box, but without the raised bottom. The boxes are set in hotbeds or cold-frames, filled with rich, friable soil and the seed planted. When

danger of frost is over, the plants are set in the open ground, the boxes being cut away, so that the roots are not disturbed at all.

The striped cucumber beetle is often very destructive to young plants. These beetles, when not very numerous, are usually kept from doing serious damage by dusting the plants with fine road earth. Tobacco dust and plaster may be used with impunity. Lime and ashes are more effective but will injure the plants if used too freely. We spray our fields at intervals of ten days through the season with Bordeaux mixture, to which has been added Paris green, which is a poison for biting insects and a preventive of blight. The best protection against any injury is a vigorous and rapid growth of the young plants.

Pick the fruit as soon as it is large enough and before it begins to ripen, as the vines will cease setting fruit as soon as any seed begins to mature. In gathering for pickles, cut the stem instead of pulling the fruit off and be careful not to mar the fruit in any way, for if the skin is broken the pickles will not keep so well.

We pay particular attention to growing and selecting the various strains so as to keep them pure and true to name.

**EARLY CLUSTER**—An early and very productive variety. The vines are hardy and very vigorous, bearing fruits in clusters of two or three. The fruits are short, thick, bright green, shading lighter at blossom end, crisp and tender. This sort is planted in many sections for the home garden. It is extensively used for a pickling cucumber as well as for slicing.

**EARLY FRAME, OR SHORT GREEN**—Vigorous and productive; medium in size and earliness; good for pickling and slic-

ing; fruit light green and is inclined to be three-cornered rather than round.

**CHICAGO PICKLING**—The fruits of this very desirable sort are of medium length, tapering at each end, with very large and prominent spines. The color is deep green. This is a very prolific variety and one of the best for those who want crisp, coarsely spined pickles.

**BOSTON PICKLING**—This is a very productive variety that is extensively grown for pickles. The vines are vigorous. The fruits are bright green, of medium size, very smooth and symmetrical. The flesh is crisp and tender. Our seed is decidedly superior to much that is offered.

**JERSEY PICKLING**—This variety is between the Long and the Short Green, forming a long, slender, cylindrical deep green pickle which is very crisp and tender. The vines are very vigorous and productive. The mature fruits are usually about eight to nine inches in length. This sort is desirable for slicing as well as for pickling.

**EARLY WHITE SPINE**—One of the best sorts for table use. The vines are vigorous, fruiting early and abundantly. The fruits are uniformly straight, dark green, fairly well covered with white spines and when mature are usually about seven inches in length. The flesh is crisp, tender and of excellent quality. The variety is much used for the home garden and market.

**WHITE SPINE, ARLINGTON IMPROVED**—One of the earliest and most productive, true to type and uniform of the White Spine family; fruit about 7 inches long, rounded at both ends and of a bright, deep green color.

**KLONDIKE**—A medium early white spined cucumber of handsome, very dark green color and of excellent quality for slicing. The vines are very hardy and productive. The mature fruits when grown under favorable conditions are often about eight inches in length, and are uniform in size and shape. The color is very dark green, slightly striped at the ends. The dark green color is retained much longer and is affected less by the hot sun than any other sort with which we are familiar. Its uniform size and shape and splendid color are making this variety very popular as a shipping sort.

**EARLY FORTUNE**—An excellent shipping variety, producing very attractive fruits of rich dark green color. The fruits average uniformly about nine inches long, cylindrical or slightly tapered at ends. The seed cavity is small and the flesh thick, crisp and tender. Plants vigorous growing and productive. Recommended as one of the best shipping sorts yet introduced.

**DAVIS PERFECT**—Fruits very deep green in color, rather long, averaging ten inches or more in length, white spined, quite slender, symmetrical, tapering slightly at both ends. Flesh is crisp, tender and of good quality. The seed cavity is small. The vines are very vigorous growing and quite productive. Recommended as one of the best sorts for shipping, as it retains its attractive dark color for a long time after picking.

**IMPROVED LONG GREEN**—The stock we offer under this name is in a class by itself. The vines are very vigorous and productive. The fruits are very long, often twelve to fifteen inches when mature. They are uniformly slender and of beautiful dark green color. The large warts and spines are well distributed over the surface instead of being clustered at one end as in inferior stocks. The variety furnishes some fruits early but matures the bulk of its crop rather late. It is a standard sort for slicing and is very largely used for pickles. The fruits are often used for making sweet pickles. This is probably the most extensively used cucumber for the home garden and market. We have given this variety especial attention for many years and we believe the stock we offer has no equal.

**JAPANESE CLIMBING**—A distinct climbing sort for covering fences or trellises; fruit ten inches long, thick, crisp and fine quality; color dark green.

**SMALL GHERKIN** (For Pickles)—This is a very small, oval, prickly fruited sort quite distinct from all others and grown exclusively for pickles. It is the smallest of all the varieties and should always be picked when young and tender. The seed is distinctly smaller than that of other cucumbers and is slow to germinate, requiring usually from two to three weeks.

**COOL AND CRISP**—A white spine type; early, pointed at both ends, rather thicker in the middle; of fair quality; not a pickling variety.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Early Cluster.....	.10	.15	.40	.70	1.25
Early Frame or Short Green....	.10	.15	.40	.70	1.25
Chicago Pickling.....	.10	.15	.40	.70	1.25
Boston Pickling.....	.10	.15	.40	.70	1.25
Jersey Pickling.....	.10	.15	.40	.70	1.25
Early White Spine.....	.10	.15	.40	.70	1.25
White Spine, Arlington Improved .....	.10	.15	.40	.70	1.25
Klondike .....	.10	.15	.40	.70	1.25
Early Fortune.....	.10	.15	.40	.70	1.25
Davis Perfect.....	.10	.15	.40	.70	1.25
Improved Long Green.....	.10	.15	.45	.75	1.50
Japanese Climbing.....	.10	.15	.45	.75	1.50
Small Gherkin.....	.10	.15	.45	.80	1.60
Cool and Crisp.....	.10	.15	.40	.70	1.25



## CRESS

As early in spring as the ground can be worked sow the seed in rich, well prepared soil, in shallow drills about sixteen inches apart, covering with about one-half inch of fine soil firmly pressed down. When the young plants are well started thin four to six inches apart in the row. For succession plant every two weeks, thinning out as required for use. Keep off insects by dusting with Pyrethrum powder.

**CURLED OR PEPPER GRASS**—The leaves of this small salad are much frilled or curled, and are used for garnishing. It is also desirable with lettuce, to the flavor of which its warm, pungent taste makes a most agreeable addition. The plant is of rapid growth, about one foot high.

**TRUE WATER**—This is a distinct variety of cress with small, oval leaves. It thrives best when its roots and stems are submerged in water. A fair growth may be obtained in soil which is kept wet but does best when grown along moist banks or in tubs in water-covered soil. It is one of the most delicious of small salads and should be planted wherever a suitable place can be found. The seed is usually sown and lightly covered in gravelly, mucky lands along the borders of small, rapid streams. The plants will need no subsequent culture, as under favorable conditions they increase very rapidly by self-sown seed and extension of the roots. When gathered for the market the shoots should be cut, not broken off. In summer it is best to cut them closely, the oftener the better.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Curled or Pepper Grass.....	.10	.15	.30	.50	1.00
True Water.....	.10	.40	1.25	2.25	4.50

## DANDELION

Sow early in spring, in very warm, rich soil, in drills eighteen inches apart; thin to five inches apart and cultivate well; they will be fit for cutting the next spring. When grown for the roots, sow in September and cultivate well during the fall and the following summer; the roots will be fit to dig in October.

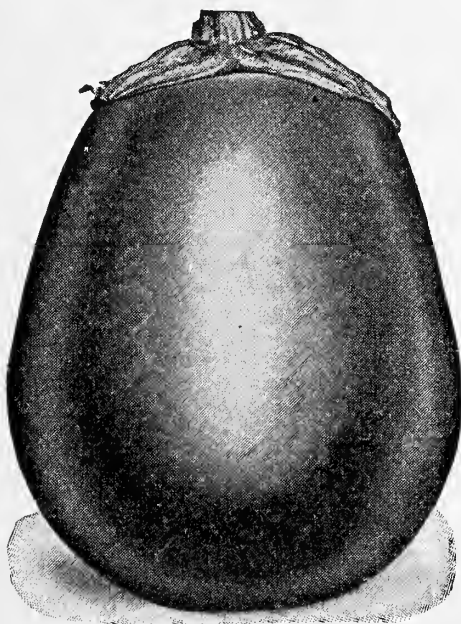
**CULTIVATED OR FRENCH COMMON**—A decided improvement on the wild dandelion. It is very early and vigorous.

**IMPROVED THICK LEAVED**—Unsurpassed in thickness of leaf and deep green color. It is compact and forms an upright regular tuft at the center. This cabbaging sort is much superior to the common or uncultivated dandelion.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Cultivated, or French Common .10	.10	.55	1.75	3.00	6.00
Improved Thick Leaved.....	.10	.75	2.50	4.50	9.00

## EGG PLANT

**Culture**—The Egg Plant will thrive well in any good garden soil, but will repay good treatment. The seeds should be sown in hotbed or warm greenhouse in March or April, and when about an inch high, potted in 2-inch pots. Plant out about June 1, 2½ feet apart. If no hotbed is at hand, they can be grown in any light room where the temperature will average 75°. One ounce for 2,000 plants.



NEW YORK IMPROVED PURPLE

**NEW YORK IMPROVED PURPLE (Spineless)**—The favorite market variety. Plant large, spreading and spineless, producing four to six large oval fruits of dark purple color.

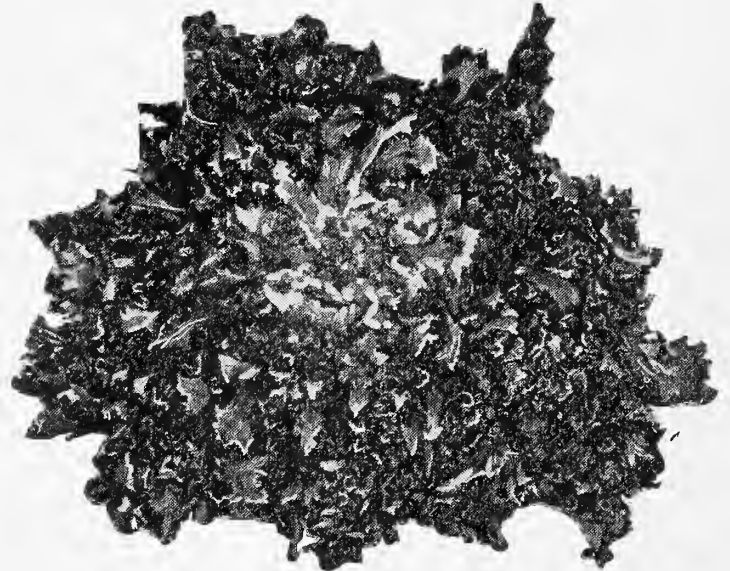
**BLACK BEAUTY**—Earlier and nearly as large as New York Purple; fruit very dark purple, which color it holds for a long time.

	Pkt.	¼ Oz.	Oz.	4 Ozs.
New York Improved Purple (Spineless) .....	.10	.15	.45	1.25
Black Beauty .....	.10	.15	.45	1.25

## ENDIVE

One of the best salads for fall and winter use. Endive is not only much used for salads and garnishing, but is also desirable for greens and for flavoring soups and stews.

Plants may be grown at any season of the year but are more generally used late in the fall. For early use sow about April 15th; for later supply sow in June or July in drills fourteen to twenty inches apart and when well started thin the plants to one foot apart. When nearly full grown tie the outer leaves together over the center in order to blanch the heart of the plant. By covering fresh plants every few days a succession may be kept up.



LARGE GREEN CURLED

**LARGE GREEN CURLED**—A hardy, vigorous growing endive with bright deep green leaves. The midribs of the outer leaves are usually tinged with rose. The dense mass of deeply divided leaves formed in the center blanches very readily to a rich cream color. This sort is highly esteemed for the market and home garden, and is much used for salads.

**BROAD LEAVED BATAVIAN (Escarolle)**—A variety having broad, more or less twisted and waved bright deep green leaves with thick, nearly white midribs. The inner leaves form a fairly solid, clustering head, which blanches to a beautiful deep creamy white and is crisp and tender. This sort is unsurpassed for salads and is much used for the home garden and market.

**EVER WHITE CURLED**—The plants are moderately dense, with divided leaves which are very light yellowish green in color, even the outer ones being very light. This variety blanches readily to an attractive creamy white.

	Pkt.	Oz.	4 Ozs.	Lb.
Large Green Curled.....	.10	.15	.40	1.25
Broad Leaved Batavian (Escarolle) ..	.10	.15	.40	1.25
Ever White Curled.....	.10	.15	.40	1.25

## FENNEL

**FLORENCE**—A bulb-like vegetable which is formed above the ground at the base of the leaf stalk if the plant is well grown. Blanched and boiled it has a slightly aromatic odor and pleasant taste. Plant very branching, with dense thread-like foliage.

Sow early in spring in rich, well prepared soil, in drills two feet apart and cover one-fourth to one-half inch deep. When the plants are about two inches high thin to ten inches apart in the row. When half grown, if the plants are earthed up and treated as celery, the stems will be nearly as white, crisp and palatable. Hardy annual, two to four feet high. Price—Pkt., 10c; Oz., 25c; 4 Ozs., 75c; Lb., \$2.00.

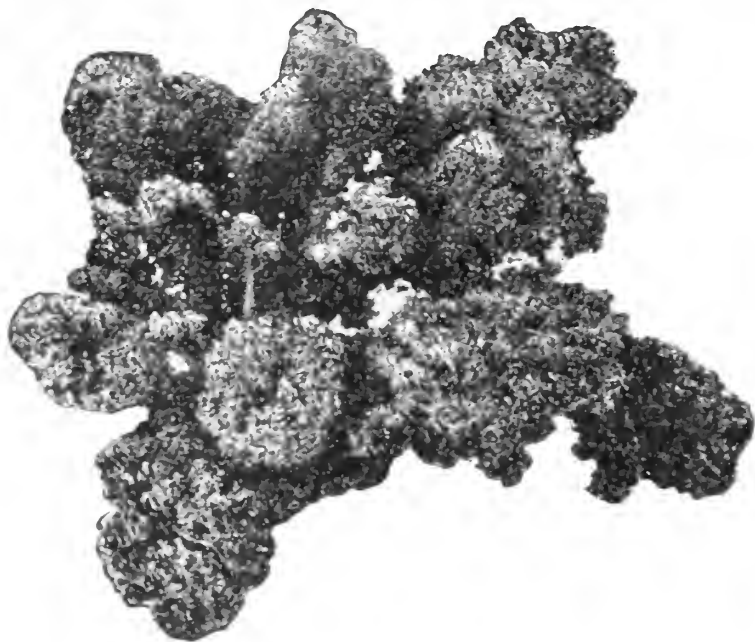
## KALE or BORECOLE

This is extensively grown, especially in the south during the fall, winter and spring. The leaves are used principally for greens. A favorite way is to cook them with bacon. The leaves are also used for garnishing.

Where climate permits seed may be sown any time from August to October, broadcast or preferably in drills eighteen inches apart, so that the plants when small may be cultivated. The quality is improved rather than injured by frosts if not too heavy. Farther north sow in April or May in rich light soil in rows two to three feet apart and where plants of the largest size are desired, thin to two feet apart in row. It is better not to cut or handle the plants while frozen, but if this is unavoidable, thaw them out in cold water. The young shoots which start up in the spring from the old stumps are very tender and make excellent greens.

**TALL GREEN CURLED SCOTCH**—The plant of this variety grows to three or four feet high, bearing long, plume-like, light green leaves which are deeply cut, also finely curled at edges. Very ornamental and so hardy that a moderately heavy frost improves rather than injures its quality.

KALE OR BORECOLE—Continued



DWARF CURLED KALE

**DWARF CURLED SCOTCH**—A finely curled, spreading, low growing variety, very hardy and much used for greens. This sort, sometimes called Norfolk, is grown extensively in the south for shipment and is planted largely for the home garden. The leaves are long and attractive bright green. This sort is often used for garnishing.

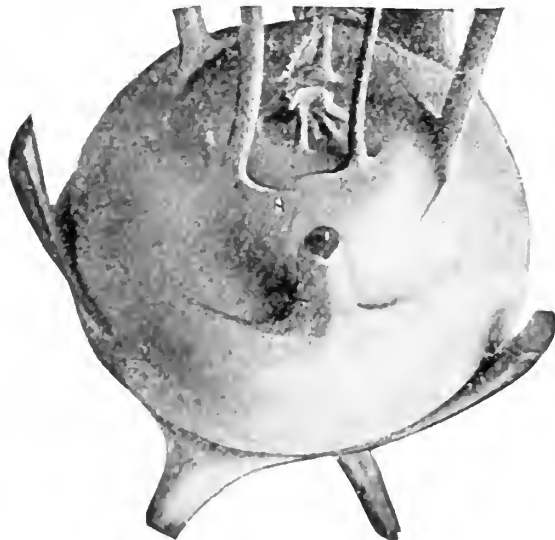
**DWARF PURPLE**—Similar to Dwarf Curled Scotch but the leaves are deep green and purple. It is very attractive in its rich purplish coloring.

**SIBERIAN**—A very vigorous growing variety of spreading habit, its green foliage having a distinctive bluish tinge or bloom. The leaves are very large, comparatively plain in the center but are cut and frilled at the edges. The variety is very hardy, a favorite for greens and in some sections is extensively grown for forage. This sort is sometimes called Sprouts.

	Pkt.	Oz.	4 Ozs.	Lb.
Tall Green Curled Scotch.....	.10	.15	.30	1.00
Dwarf Curled Scotch.....	.10	.15	.30	1.00
Dwarf Purple.....	.10	.15	.30	1.00
Siberian .....	.10	.15	.30	1.00

KOHL RABI

The edible part is the turnip-shaped bulb formed above ground. It is tender and excellent when used before fully grown, combining somewhat the flavors of cabbage and turnip. Seed should be sown in light, rich soil as early in spring as possible in rows one and one-half feet apart and when well established thin to six inches apart in the row. Plantings at intervals of ten days will give a succession until hot weather, when they fail to grow well. Plantings may be made the latter part of July for fall use.



KOHL RABI

**EARLY WHITE VIENNA**—(Extra for forcing.) This variety is extremely early with distinctly small tops. The bulbs are of medium size, very light green or nearly white, and are of best quality for the table if used when about two inches in diameter.

**EARLY PURPLE VIENNA**—Very early, with small top, the leaf being tinged with purple. Bulbs of medium size, purple; flesh white. Desirable for forcing and early outdoor planting.

**LARGE GREEN**—This sort is also called Large White. It is hardy, quite late and used for feeding stock. Bulbs large, weighing eight to ten pounds when fully grown.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Early White Vienna.....	.10	.25	.75	1.25	2.00
Early Purple Vienna.....	.10	.25	.75	1.25	2.00
Large Green.....	.10	.25	.75	1.25	2.00

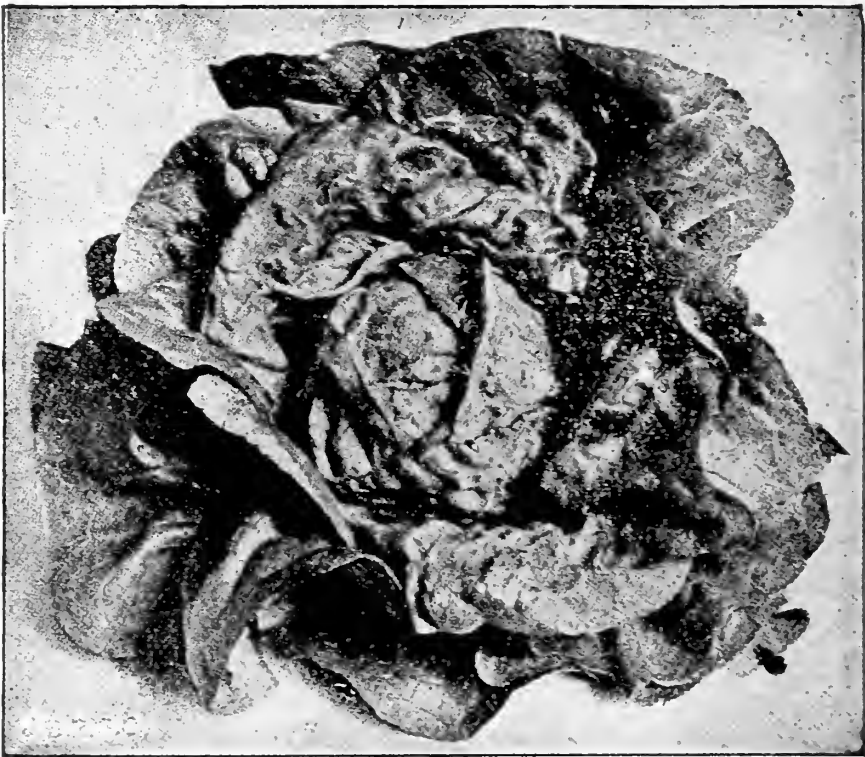
LETTUCE

Lettuce to be at its best should be grown rapidly, hence the soil should be made as rich and friable as possible by liberal manuring and thorough preparation. For general crop, sow outdoors as early in the spring as the ground can be worked, in drills eighteen inches apart, and thin the young plants to four inches apart in the row. As the plants begin to crowd thin them out and use as required. For the cabbage or heading varieties, where large heads are desired, the plants should be thinned ten to twelve inches apart in the row.

Varieties marked A are particularly adapted for culture under glass and for early spring use. Those marked B are sometimes grown under glass, but are especially desirable for outdoor or summer culture. Big Boston, Brown Dutch and California Cream Butter are very hardy and suited for winter outdoor culture in the south.

CABBAGE OR HEADING VARIETIES

**MAY KING**—A. (Seed white). This is a handsome extremely early, compact cabbage or heading variety for the home garden and market, forming very firm heads of medium size and excellent quality. The color is light yellowish green, tinged with reddish brown when mature. The inner leaves blanch rich golden yellow, very tender and buttery. The plant is very compact for so large a head. The variety is exceptionally early outdoors, attaining a size suitable for use before other sorts and is also very satisfactory for forcing.



BIG BOSTON LETTUCE

**EARLY TENNIS BALL**—A. (Seed black.) One of the best heading lettuces, especially desirable for early planting outdoors and also suitable for forcing. The plants are large, with thick, bright green leaves. They form very solid heads, the inner leaves blanching to a rich creamy white, and are crisp, tender and buttery.

**SALAMANDER**—B. (Seed black.) A very extensively used sort of excellent quality for the home garden and market. The variety withstands hot weather remarkably well. It forms a large, compact, light green plant. The leaves are broad, thick, somewhat crumpled and closely overlapping, so that the inner ones are very finely blanched. It is one of the most satisfactory heading lettuces for growing outdoors.

**UNRIVALED SUMMER**—B. (Seed white.) A large light, bright green heading lettuce, similar in habit of plant to Big Boston but a trifle earlier, maturing as an outdoor summer variety and having no red or bronze shading on the leaves. Heads are large, firm and of excellent quality.

**BIG BOSTON**—B. (Seed white.) This market variety is very popular for outdoor culture and is also in demand as a compact, large heading, forcing sort for cold frames. The plants are large, very hardy and vigorous. The leaves are broad, comparatively smooth but wavy at the edge, thin, very hard and crisp. In color they are bright light green, the head slightly tinged with reddish brown. The inner leaves blanch to an attractive greenish white, tinged with light yellow. It heads up under cold weather conditions better than any other variety, and is grown very extensively in the south for shipment north in the winter.



LETTUCE—Continued

**CALIFORNIA CREAM BUTTER OR ROYAL SUMMER CABBAGE—B.** (Seed brown.) A very reliable heading sort, with glossy, deep green leaves, the outer ones slightly spotted or splashed with brown. The inner leaves form a large, very solid head, rich light yellow in color, very thick, tender and buttery.

**HANSON, IMPROVED (W. S.)**—One of the most reliable, sure-heading sorts; heads globular, large and late; leaves large and very broad, fairly blistered and crumpled, borders finely frilled; color clear light green; quality good. A fine variety for midsummer planting outside, as it withstands the hot season better than most sorts and is a slow seeder.

**ICEBERG (W. S.)**—A large, late, crisp, cabbage-heading variety; heads very firm and hard and well blanched; leaves unusually broad and somewhat blistered and crumpled borders finely frilled; color, light green with faint brown tracing on the border; quality good.

**GRAND RAPIDS—A.** (Seed black.) As a lettuce for greenhouse forcing this variety undoubtedly stands at the head of the list, being of quick growth, hardy, little liable to rot and remaining in condition several days after being fit to cut. The plant is upright and forms a loose cluster of large, thin, bright green leaves, savoyed, finely crimped at edges. The leaves do not wilt quickly after cutting, so that the variety will stand shipping long distances better than most sorts. It is a very attractive variety and is desirable for garnishing.

LEAVED VARIETIES

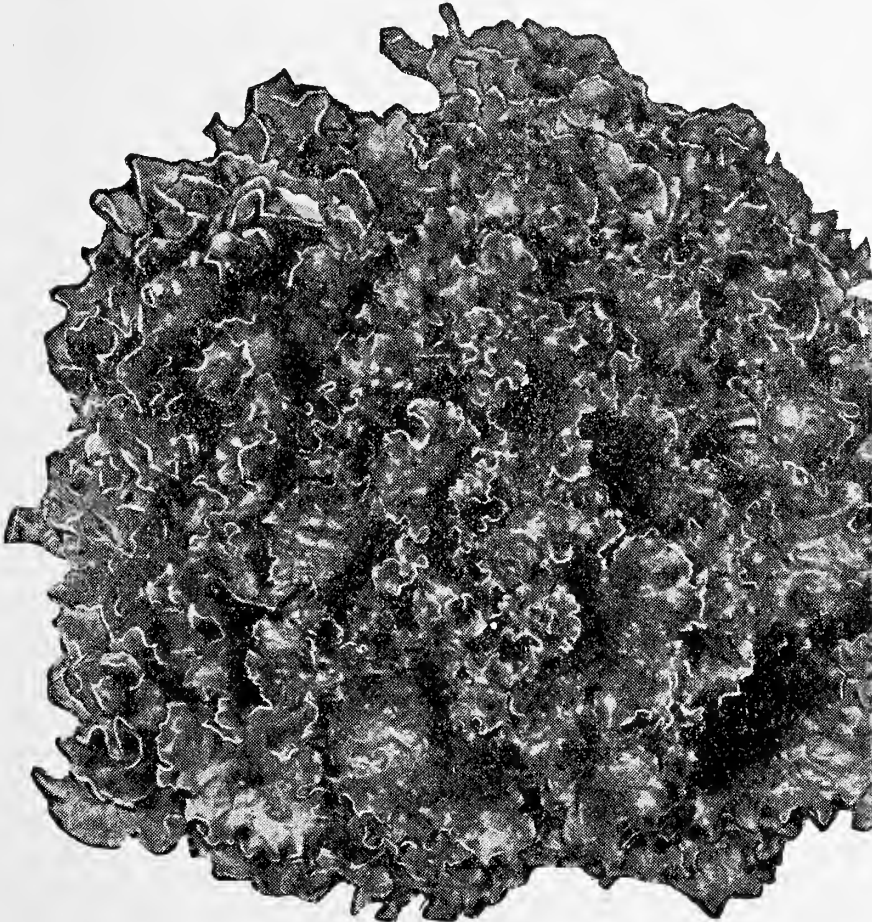
**SIMPSON'S EARLY CURLED—B.** (Seed white.) A very extensively used early loose leaved or clustering variety. The leaves are light green in color, slightly frilled and much blistered, crisp, sweet and tender. The sort is especially adapted for sowing thickly and cutting when the plants are young.

**ONONDAGA LETTUCE (W. S.)**—A crisp and tender loose-leaved sort and one of the most popular; leaves much crumpled and excessively frilled at the borders; color bright green and brown; quality good.

**BLACK SEEDED SIMPSON—B.** One of the best for sowing outdoors where an exceedingly tender leaf is desired and for those markets which demand a very large loose clustering sort. The color is an attractive light yellowish green. It is used also for growing under glass or in frames. The leaves are ruffled and blistered and even the large outer ones are very tender. This curly and thin-leaved, bunching variety is uniformly attractive and remains of excellent quality a very long time.

**SILESIA EARLY CURLED (W. S.)**—Early, crisp and loose heading; leaves rather short and broad, much crumpled and frilled on the borders; color very light green. Quite identical with Early Simpson.

**COS LETTUCE (Romaine)**—This kind of lettuce is distinguished by its long, narrow, spoon-shaped leaves, folding into loose, sugar-loaf shaped heads which blanch better by having the outer leaves drawn about them and tied. The quality is distinct from that of the Cabbage Lettuces and by many is considered very superior.

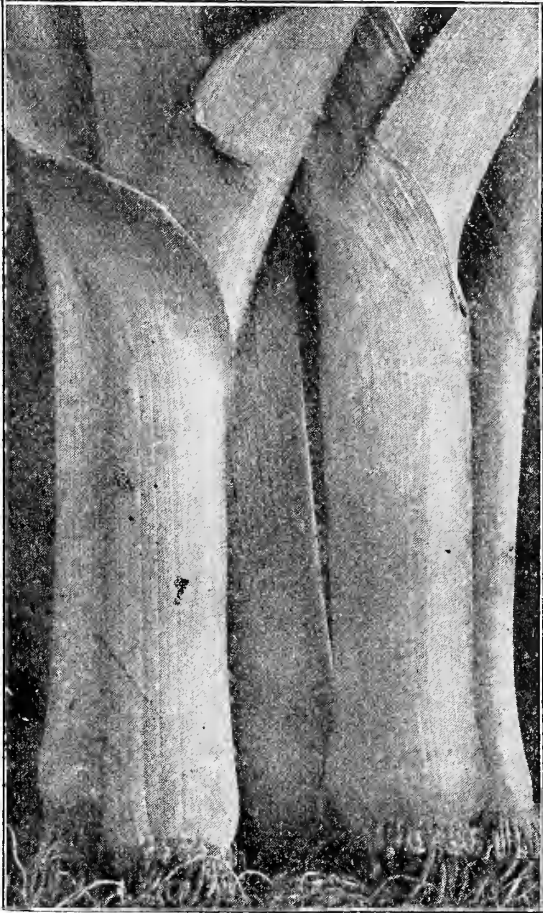


GRAND RAPIDS LETTUCE

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
May King.....	.10	.15	.50	.80	1.50
Early Tennis Ball.....	.10	.15	.50	.80	1.50
Salamander .....	.10	.15	.50	.80	1.50
Unrivalled Summer.....	.10	.15	.50	.80	1.50
Big Boston.....	.10	.20	.70	1.25	2.00
California Cream Butter or Royal Summer Cabbage.....	.10	.15	.50	.80	1.50
Hanson Improved.....	.10	.15	.50	.80	1.50
Iceberg .....	.10	.15	.50	1.00	2.00
Grand Rapids.....	.10	.15	.50	1.00	2.00
Simpson's Early Curled.....	.10	.15	.50	.80	1.50
Onondaga Lettuce.....	.10	.15	.50	.80	1.50
Black Seeded Simpson.....	.10	.15	.50	.80	1.50
Silesia Early Curled.....	.10	.15	.50	.80	1.50
Cos Lettuce (Romaine).....	.10	.20	.70	1.25	2.50

LEEK

This belongs to the onion family and is a good fall and winter substitute for green onions. The leaves are flat, and the stems are very large, cylindrical and bulbous. Sow early in



LEEK

spring in drills twelve to fifteen inches apart, covering one-half inch deep. Thin plants to six inches apart in row and draw the earth about them when cultivating. If one desires very white and tender leeks transplant when about six inches high, setting four inches apart in trenches about two feet apart and gradually earth up like celery.

**LONDON FLAG**—This well known broad-leaved leek is hardy, productive, of good quality, and is extensively cultivated in this country.

**LARGE AMERICAN FLAG**—A desirable strong growing, broad-leaved leek, hardy and productive. It is a favorite with many market gardeners and is also extensively used for the home garden.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
London Flag.....	.10	.25	.70	1.25	2.00
Large American Flag.....	.10	.25	.70	1.25	2.00

MUSK MELON

After danger of frost is past, the ground being warm and in good condition, plant in rich soil, preferably sandy loam, in hills about four to six feet apart according to the vigor of the variety. Put ten or twelve seeds in a hill, covering with about an inch of fine soil firmly pressed down. When the plants begin to crowd and the striped beetles are pretty well gone, thin to four of the most vigorous plants to a hill. Give frequent but shallow cultivation, until the plants make runners so long that this is impracticable. Rich earth for the young plants is far better than manure, but if the latter must be used, see that it is well rotted and thoroughly mixed with the soil.

The quality of all varieties of Musk Melon is largely dependent upon conditions of growth and ripening. Unhealthy vines or unfavorable weather produces fruit of comparatively poor flavor.

The plants are liable to attack from the striped beetles, which are so numerous in some cases as to destroy them. The beetles may be kept off by frequent dusting with air-slaked lime, soot or sifted ashes diluted with fine road earth. Care should be taken not to use too much of any of the above materials or the vines will be injured. Should even the diluted material prove injurious to the vine, use road earth only, as

## MUSK MELON—Continued

frequent dusting with this alone will often prove effective especially if a wind is blowing. After the plants have four to six leaves it is considered a safeguard against blight to spray with Bordeaux Mixture at intervals of about ten days, adding either Paris green or arsenate of lead for the eating insects.

### GREEN FLESHED VARIETIES

**EXTRA EARLY HACKENSACK**—This early green fleshed variety is popular in many sections as a market melon and is also extensively used as a home garden sort. The fruits are nearly two weeks earlier than Hackensack, medium to large sized, nearly round or somewhat flattened, evenly and deeply ribbed and with very coarse netting. The skin is green, slightly tinged with yellow as the fruits mature. The flesh is green, a little coarse but juicy and sweet.

**JENNY LIND**—An extra early, green-fleshed melon; fruit round and flattened at the ends, deeply ribbed and heavily netted.

**NETTED GEM OR ROCKY FORD**—This has become one of the most popular of small or crate melons and is shipped in large quantities from Colorado and Arizona. It is also a desirable medium early sort for the home and market garden. The vines are vigorous and productive. The fruits are oval, slightly ribbed, densely covered with fine netting. The flesh is green, very sweet and highly flavored. We offer an exceptionally fine stock of this early sort, the fruit being very uniform in shape and quality and of the even size that is so desirable in a shipping melon.

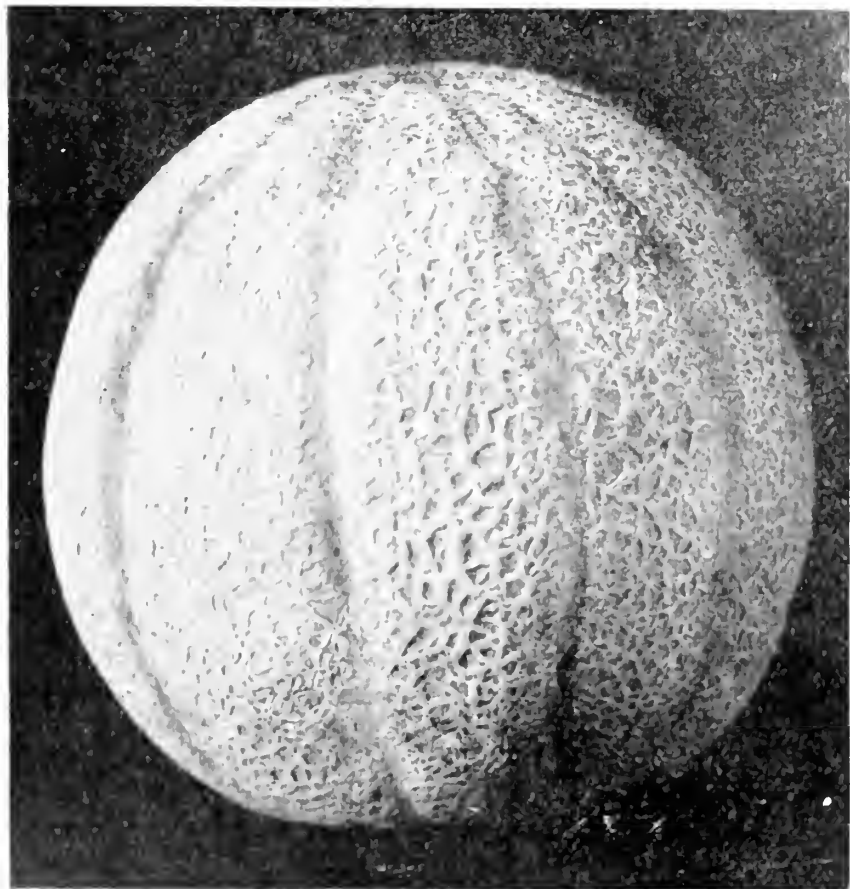
**HONEYDEW MUSKMELON**—This melon requires a longer and warmer season than other melons. Fruits with smooth white rind. Flesh green and thick. Has sweet flavor something like honey. Gather them as soon as they slip from the vines, store in a cool place two or three days, as they are best when apparently a trifle over-ripe.

**EDEN GEM (Gold-lined Rocky Ford)**—A round type of Rocky Ford; entirely covered with fine netting and without ribs; flesh green and quality excellent.

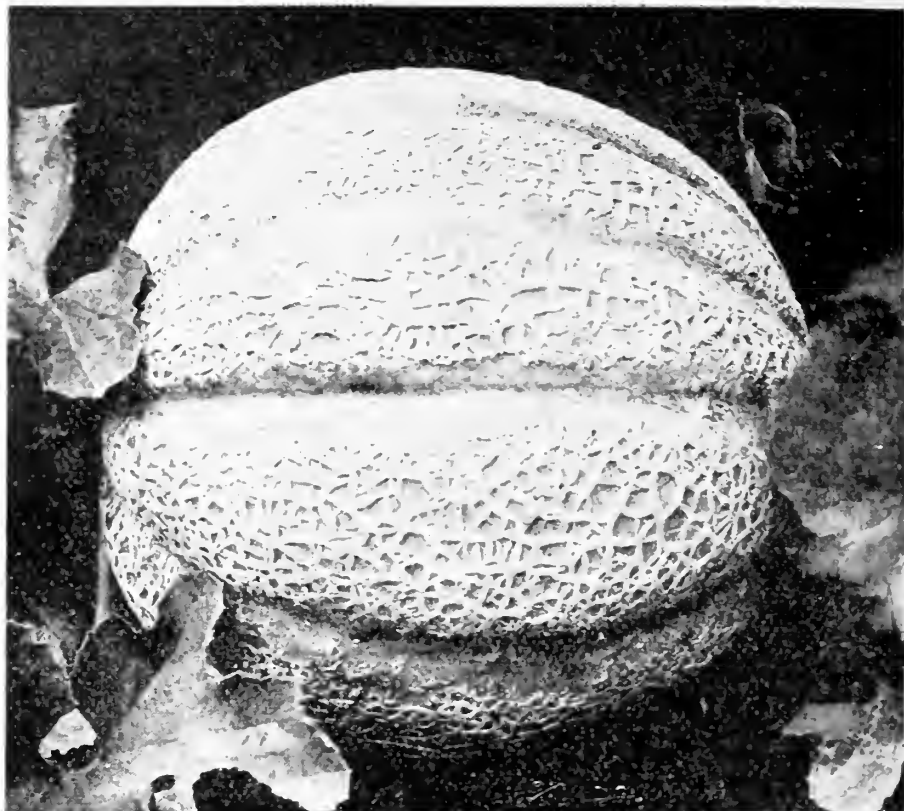
**EXTRA EARLY KNIGHT**—The earliest high quality melon and especially adapted for growing in the far North. A medium-sized variety of the Acme type, with oblong fruit distinctly ribbed and well covered with a close gray netting; skin deep green, turning to golden at maturity; flesh fairly thick, exceedingly sweet and of a bright green color. Worthy of a place in every garden.

### ORANGE FLESHED VARIETIES

**EMERALD GEM**—A very early, yellow fleshed melon of small to medium size. One of the very best for the home garden. The vines are vigorous and productive. The fruits are globular or slightly flattened, are somewhat irregular ribbed and very slightly netted. The skin is deep green while young, becoming slightly tinged with yellow as the fruit matures. The flesh is deep salmon-yellow, thick, ripening close to the rind, juicy, melting and very highly flavored. For the home market as well as the kitchen garden Emerald Gem leads all other kinds on account of its sweetness and convenient size.



METCALF'S DELICIOUS



BENDER MELON

**EXTRA EARLY OSAGE**—This excellent variety is fully a week earlier than the Osage, the fruits are a little smaller, more nearly round and the netting extends over more of the surface. These very desirable features, combined with the thick salmon flesh and small seed cavity, characteristic of the Osage, make this melon deserving of a place in the home and market garden.

**THE BENDERS**—A fine variety of exceptional merit. The fruits are round and deeply ribbed and finely netted. A salmon fleshed, thick meated, delicious in flavor.

**HOODOO**—Sometimes sold as Ordway Queen. This is an orange fleshed variety of medium size, ideal as a shipping melon and a desirable mid-season sort for the home garden. The vines are vigorous, blight-resisting and very productive. The fruits are nearly round and are uniformly of medium size. The netting is exceptionally fine and dense, extending over practically the entire surface. The rind is thin yet very firm, so that the melons arrive in perfect condition in distant markets. The flesh is very thick, firm, highly colored, of fine texture and delicious flavor.

**OSAGE OR MILLER'S CREAM**—An excellent main crop, medium to large, oval, salmon fleshed melon. The vines are partly covered with shallow gray netting. The flesh is rich orange-salmon, very thick, fine grained and highly flavored. It is a favorite among growers for the later markets and is much used for the home garden. The strain we have developed has an exceptionally small seed cavity. We believe our stock to be unequalled.

**MONTREAL GREEN NUTMEG (Montreal Market)**—Excellent; very large, often weighing 18 to 20 pounds; fruit round, flattened at both ends, light green.

**CASSABA MELON**—The Cassabas are primarily for winter use. They require a long season for maturing but the fruits are exceptionally good keepers. The skin of the fruits is usually furrowed and they possess little or none of the common musk melon odor. Seed may be planted in April or May. Cultivate same as other muskmelons but do not water too freely after first setting of fruit is fully grown. The fruits may be picked when the light streaks have become quite yellow. Store the fruits so they do not touch each other, in a cool, dark place. When the rind becomes slightly softened and moist they are ready to cut.

**METCALF'S DELICIOUS**—This is an early, large, heavily netted melon. The flesh is a deep salmon, rich, sweet and juicy. An excellent melon for the market gardener and of fair quality; seeds black.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Extra Early Hackensack.....	.10	.15	.40	.70	1.25
Jenny Lind.....	.10	.15	.35	.60	1.00
Netted Gem, or Rocky Ford..	.10	.15	.40	.70	1.25
Honeydew Muskmelon.....	.10	.15	.40	.75	1.25
Eden Gem (Gold Lined Rocky Ford) .....	.10	.15	.35	.65	1.25
Extra Early Knight.....	.10	.15	.40	.75	1.25
Emerald Gem.....	.10	.15	.35	.65	1.15
Extra Early Osage.....	.10	.15	.40	.75	1.25
The Benders.....	.20	.30	1.00	2.00	4.00
Hoodoo .....	.10	.15	.35	.65	1.25
Osage, or Miller's Cream.....	.10	.15	.35	.65	1.25
Montreal Green Nutmeg (Montreal Market).....	.10	.15	.35	.65	1.25
Cassaba .....	.10	.15	.35	.65	1.25
Metcalf's Delicious.....	.20	.30	1.00	2.00	4.00



## WATERMELON

To make certain of raising good watermelons, it is essential that the plants have a good start and to this end it is important to prepare hills about eight feet apart by thoroughly working into the soil an abundance of well rotted manure—hen manure, guano, or other forms rich in nitrogen being most desirable. Over this highly manured soil put an inch or more of fresh earth and plant the seeds on this, covering them about an inch deep.

It is important that the seed should not be planted before the ground becomes warm and dry, as the young plants are very sensitive to cold and wet. Put ten or twelve seeds in a hill. When the plants have formed the first pair of rough leaves, they should be thinned so as to leave two or three of the strongest and best to each hill.

Frequent watering of the plants with liquid manure will hasten the growth, thus diminishing the danger from insect pests. If the striped beetle appears use tobacco dust freely. The best protection against blight and insect pests is to maintain a vigorous and continuous growth. It is desirable to change the location as often as practicable.

**HARRIS' EARLIEST**—An extra early melon of excellent quality. The fruits are exceptionally large for so early a variety, slightly oval with irregularly mottled broad stripes of light and dark green. The flesh is bright red, sweet and tender. Seed black. The vines are vigorous and productive. One of the best varieties for northern latitudes.

**COLE'S EARLY**—One of the earliest and best of the early sorts; hardy, medium size, nearly round; rind dark green, striped a lighter shade; flesh deep pink and excellent in quality; seeds black.

**PEERLESS, OR ICE CREAM**—Very early, of medium size and one of the best for growing in the North; short oblong in form; rind thin, light green, mottled and finely veined with a darker shade; flesh bright scarlet and very sweet; seeds white.

**PHINNEY'S EARLY**—Ripens with Peerless; medium in size and oblong in form; color very distinct, the rind being mottled with various shades of green so as to present an almost scaly appearance; quality good; seeds light brown.

**SWEETHEART**—A medium early variety, growing to a very large size; a heavy, round to oblong form with a rather thick, tough rind and a good shipper; color, very light green, slightly veined, a trifle darker shade, flesh bright red and of fair quality; seeds black.

**MONTE CRISTO OR KLECKLEY'S SWEETS**—This most excellent variety is unsurpassed for home use or near markets. The vines are vigorous and productive. The fruits are medium to large, oblong, tapering slightly toward the stem end, dark green. The flesh is very bright, rich red and is exceedingly sweet. The variety is so crispy and tender that it will not stand shipping, the fruit bursting open if subjected to even a slight jar, or when the rind is penetrated with a knife. Seed white.

**TOM WATSON**—This is a long green variety of attractive appearance. The flesh is a red color, the rind thin but hard and tough. The melon is of large size and matures in 85 days. Unequaled for shipping.

**MOUNTAIN SWEET**—An old variety; moderately early, medium to large in size, oblong in form and very dark green; good quality.

**CITRON, RED SEEDED**—The old, well known, red-seeded preserving melon.

**CITRON, COLORADO PRESERVING**—An improvement on the old Preserving Citron; seeds green, fruit round to oblong; very productive.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Harris Earliest.....	.10	.15	.25	.40	.75
Cole's Early.....	.10	.15	.25	.40	.75
Peerless, or Ice Cream.....	.10	.15	.30	.50	.90
Phinney's Early.....	.10	.15	.25	.40	.75
Sweetheart .....	.10	.15	.25	.40	.75
Monte Cristo, or Kleckley's Sweet .....	.10	.15	.30	.50	.90
Tom Watson.....	.10	.15	.30	.50	.90
Mountain Sweet.....	.10	.15	.25	.40	.75
Citron, Red Seeded.....	.10	.15	.25	.40	.75
Citron, Colorado Preserving.....	.10	.15	.25	.40	.75

## MUSHROOM

The Mushroom is an edible fungus, of which there are numerous varieties. We handle the ordinary commercial variety of a creamy white color with loose gills, which underneath are of pinkish-red, changing to liver color. The mushroom produces "seed" or spores and there is developed a white, fibrous substance in broken threads, called spawn, which is developed and preserved in horse manure, pressed in the form of bricks. Mushrooms can be grown in cellars, in sheds, in hotbeds or sometimes in the open air, the great essential being a uniform degree of temperature and moisture.

**SPORE CULTURE MUSHROOM SPAWN**—Produced from original spore cultures under the new French process, which permits the indefinite reproduction of selected varieties. Positively the most vigorous and prolific spawn on the market. Our stock is of the white variety, which is the sort generally preferred. Each brick is sufficient to spawn from 8 to 10 square feet of bed. **Price**—Per Brick (about 1 Lb.), each 30c.

## MUSTARD

Mustard is not only used as a condiment but the green leaves are used as a salad or cut and boiled like spinach. Sow as early in the spring as the ground will permit, in drills about eighteen inches apart, covering one-half inch deep. For succession, sow every few weeks till autumn. Water freely. In the south the seed may be sown in autumn and the plants used early in the spring as a salad and for greens.

**WHITE ENGLISH**—The leaves are comparatively small and smooth, deeply cut or divided and of medium dark green color. The plant is upright, of rapid growth and soon bolts to seed. The leaves, when young, are mild and tender. Seed light yellow and larger than that of other varieties.

**LARGE SMOOTH LEAVED**—An excellent sort with very large, light green, plain or comparatively smooth leaves, borne well above the ground. The plant is of very quick growth, fairly upright when young, becoming somewhat spreading at maturity. This sort is preferred by many, as it is more easily prepared for the table than the rougher leaved varieties. Seed small, reddish brown to nearly black.

**SOUTHERN GIANT CURLED**—The leaves are large, light green with tinge of yellow, much crimped and frilled at edges. The plant is upright or slightly spreading in growth. This variety is highly esteemed in the south for the markets as well as the home garden on account of its vigorous growth, hardiness and good quality. Seed small, reddish brown to nearly black.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
White English.....	.10	.15	.30	.45	.90
Large Smooth Leaved.....	.10	.15	.30	.45	.90
Southern Giant Curled.....	.10	.15	.30	.45	.90

## OKRA or GUMBO

The young seed pods are used in soups, stews, catsups, etc. Highly esteemed in the south. After danger of frost is past, the ground being warm and in good condition, plant in rows about two and one-half feet apart, covering with about an inch of fine soil firmly pressed down. When about three inches high, thin to about one foot apart in the row. Cultivate and keep free from weeds. The pods are in best condition for use when from one to three inches long.

**EXTRA EARLY DWARF GREEN PROLIFIC**—An extra early maturing variety. Very productive. Plants are more dwarf in habit of growth than those of other varieties. Pods short, deep green, slightly corrugated, tender and of good quality.

**WHITE VELVET**—The plants are about three and one-half feet high, early maturing and very productive. The pods are white, long, smooth, and are tender until nearly full sized.

**DWARF WHITE**—The plants are about three and one-half feet high and very productive. The pods are of medium length, greenish white, quite thick, slightly corrugated, tender and of good quality.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Extra Early Dwarf Green Prolific...	.10	.15	.30	.45	.90
White Velvet.....	.10	.15	.30	.45	.90
Dwarf White.....	.10	.15	.30	.45	.90



OKRA

## ONION

The Onion is one of the most extensively used of all vegetables. It not only contains considerable nutriment and has valuable medicinal properties, but is most useful in counteracting the bad effects of sedentary life.

In onion culture, thorough preparation of the ground, careful sowing and the best of after culture, though essential for a full yield, will avail nothing unless seed of the best quality be used.

Although onions are often raised from sets and from division, by far the best and cheapest mode of production is from seed. The facility with which seed is sown and the superior bulbs it produces, recommend it for general use.

As early in spring as ground can be worked, sow in rich soil, thoroughly pulverized and leveled, in rows twelve to fifteen inches apart, covering one-half inch deep. When the plants are well up, cultivate and keep free from weeds. The young plants may be thinned about one inch apart in the row. When grown for bunching, the rows can be made as close as ten inches.

For very early crop in northern latitudes, sow seed in cold-frame in February and transplant when large enough to handle readily. The same location may be used for a succession of years if the ground is kept rich by applications of well rotted manure or other suitable fertilizer and is thoroughly worked at proper intervals. Where climate permits seed may be sown early in winter. If onions are to be grown for the market the following suggestions should be given careful consideration:



## ONION—Continued

### HOW TO RAISE ONIONS FOR THE MARKET

**THE SOIL.** We prefer a soft, dark sandy loam, not too fine. This is much better if it has been cultivated with hoed crops, kept clean from weeds and well manured for two years previous, because if a sufficient quantity of manure to raise an ordinary soil to a proper degree of fertility is applied at once, it is likely to make the onions soft. The same result will follow if we sow on rank mucky ground or on that which is too wet and it is impossible to raise either a large or profitable crop on stiff clay, very light sand or gravel.

**PREPARATION.** Onions respond well to very liberal manuring. As much as forty loads of stock manure, well composted, or one ton of high grade commercial fertilizer per acre, may be applied to good advantage. The stock manure should be spread and worked into the top soil in the fall but if commercial fertilizer is used it should be distributed and thoroughly worked into the top soil after plowing in the spring. A liberal use of potash is very beneficial to the crop especially when raw manure is used or if the soil is rank and mucky, as potash reduces the tendency to scallions or coarse-necked bulbs. The top soil should be cleared of everything that will interfere with the best possible work with drill and wheel hoe. The whole ploughed soil should be well pulverized and worked with tools that leave the surface smooth and compact.

**SOWING THE SEED.** This should be done as soon as the ground can be made ready and can be done best by a hand seed drill. This should be carefully adjusted to sow the desired quantity of seed about one-half inch deep. The quantity needed will vary with the soil, the seed used and the kind of onions desired. Thin seeding gives much larger onions than thick seeding. Five pounds per acre or one ounce to 200 feet of drill is the usual quantity needed to grow large onions.

**EXTRA EARLY RED**—Sometimes called Extra Early Flat Red. Although the first of the red sorts to ripen, the bulbs are firm and keep remarkably well for so early a variety. It is a very hardy, medium-sized, flat variety that yields well and is very uniform in shape and size. The skin is uniformly rich purplish red and moderately strong flavored. It comes into use about a week or ten days earlier than Large Red Wethersfield. The flesh is white with tinge of light purple. The variety, succeeds in cool soils. It is very desirable for early market use.

**LARGE RED WETHERSFIELD**—This is the standard red variety and a favorite onion in the east, where immense crops are grown for shipment. It is very extensively grown for home garden use as well as the market. The bulbs are large and are flattened yet quite thick. The skin is deep purplish red. The flesh is light purplish white, moderately fine grained, rather strong but of pleasant flavor. The variety is very productive, one of the best keepers and very popular for general cultivation. This medium early or main crop variety does best on rich, moderately dry soil, but on low muck land it is more apt to form large necks than the Danvers. There is no better sort for poor and dry soils.

**SOUTHPORT RED GLOBE**—This most excellent medium early or main crop red variety produces bulbs of medium to large size, ideally globe shaped, with very smooth, glossy surface, very small neck and remarkably beautiful deep purplish red color. The flesh is white, tinged with light purple, mild, very fine grained and tender. The variety is extensively grown for home use as well as the market. It is one of the best keepers and is well adapted for shipping. Our splendid stock of this onion is the result of years of careful selection and is unsurpassed by any.

**SOUTHPORT WHITE GLOBE**—A most desirable medium early or main crop variety for the home garden. It is sometimes called Southport White Globe. The variety yields abundantly, producing medium to large handsome and finely shaped clear white bulbs. The flesh is firm, fine grained, quite mild in



flavor, and is more attractive than the colored sorts when cooked. The bulbs are globe-shaped, full at the shoulder, rounded at the base, keep well and are desirable for shipping.

**SOUTHPORT YELLOW GLOBE**—This very hardy and exceedingly productive late or main crop variety is of the same general character as the Southport Red Globe, but the bulbs are rich yellow, average a little larger and are later maturing. The bulbs are globe-shaped with rather full shoulder, ripen down very evenly, keep well and are suitable for shipping. The flesh is creamy white, fine grained and of mild and excellent flavor.

**OHIO YELLOW GLOBE**—An early Globe onion, small neck and very uniform in size and color. We have an excellent stock of this standard variety.

**YELLOW GLOBE DANVERS**—One of the most extensively used main crop yellow onions for the home garden and market. The bulbs are of medium to large size, uniformly globe-shaped, with small neck, and ripen very evenly. The skin is rich coppery yellow. The flesh is creamy white, crisp and of mild and excellent flavor. The variety keeps very well and is excellent for shipping. We have by careful selection and breeding developed a strain which has the ripening habit and small neck of the original Danvers and yet is more globular, thus giving larger yields and handsomer bulbs without sacrificing any of the good qualities of the original Danvers.

**MAMMOTH YELLOW SPANISH OR PRIZETAKER**—A very handsome late or main crop onion of the largest size and nearly globular in form, usually with a shoulder and base slightly sloping. The skin is yellowish brown or light yellow, with slight tinge of brown. The flesh is creamy white, very mild, tender and of excellent flavor. The variety keeps well if thoroughly ripened and is very desirable for shipping for fall and early winter. If started very early in hotbed it will produce a mammoth onion the first season.

**WHITE PORTUGAL OR AMERICAN SILVERSKIN**—This is a medium-sized onion of mild flavor and with beautiful, clear white skin. The variety is a favorite with many for use when young as a salad or bunching onion, and for pickles. It usually matures about ten days earlier than White Globe and is fine for fall and early winter use. It is an excellent medium early sort for gardeners who do not care to plant more than one variety. The bulbs are nearly round when of bunching size, somewhat flattened when mature. This is the best flattened white onion for northern latitudes.

	Pkt.	½ Oz.	Oz.	4 Ozs.	1 Lb.	5 Lbs.	10 Lbs.	25 Lbs.	50 Lbs.
Extra Early Red.....	.15	.30	.55	1.85	6.50	6.25	6.00		
Large Red Wethersfield.....	.15	.30	.50	1.75	6.00	5.75	5.50		
Southport Red Globe.....	.15	.30	.55	1.85	6.50	6.25	6.00		
Southport White Globe.....	.15	.30	.55	1.85	6.50	6.25	6.00		
Southport Yellow Globe.....	.15	.25	.45	1.75	6.00	5.75	5.50	5.25	5.00
Ohio Yellow Globe.....	.15	.25	.45	1.75	6.00	5.75	5.50	5.25	5.00
Yellow Globe Danvers.....	.15	.25	.45	1.75	6.00	5.75	5.50	5.25	5.00
Mammoth Yellow Spanish or Prizetaker.....	.15	.25	.45	1.65	5.75	5.50	5.25		
White Portugal or American Silverskin.....	.15	.30	.55	1.85	6.50	6.25	6.00		

## ONION SETS

To raise onion sets from seed, use good ground prepared as for large onions and sow the seed very thick in broad drills, using forty to sixty pounds per acre. If the seed is sown thin the bulbs will not only be too large for sets but will not be of the right shape and if sown thick on poor land they will be necky or bottle shaped. Onion seed sown for sets may be planted somewhat later than if a crop of large bulbs is desired.

**RED BOTTOM SETS**—Treated precisely as top onions are, setting them out in the spring instead of sowing seed. Price on application.

**YELLOW BOTTOM SETS**—Like the preceding except in color and used in the same manner. Price on application.

**WHITE BOTTOM SETS**—These do not keep as well as the red or yellow, but produce beautiful white onions early in the season. Price on application. Write for price when ready to buy.

## PARSLEY

Parsley succeeds best on rich, mellow soil. The seed is even slower than parsnip in germinating and should be sown as early as possible in the spring, in drills one to two feet apart, covering not more than one-half inch with fine soil firmly pressed down. When the plants are well up thin eight to twelve inches apart in the row. When the plants of the curly varieties are about three inches high, cut off all the leaves; the plant will then start a new growth of leaves, which will be brighter and better curled and later. If these turn dull or brown they can be cut in the same way; every cutting will result in improvement.

**CHAMPION MOSS CURLED**—This is a vigorous, compact growing variety, excellent for garnishing and flavoring, and a handsome decorative plant. The leaves are very finely cut and so closely crisped or curled as to resemble bunches of moss. Owing to its uniformly fine deep green color and very attractive foliage, this is one of the most popular sorts for both the market and home garden.

**FINE DOUBLE CURLED**—A standard dwarf variety with finely crimped leaves.

**LARGE ROOTED HAMBURG**—The edible roots of this variety resemble a small, thick parsnip in shape.

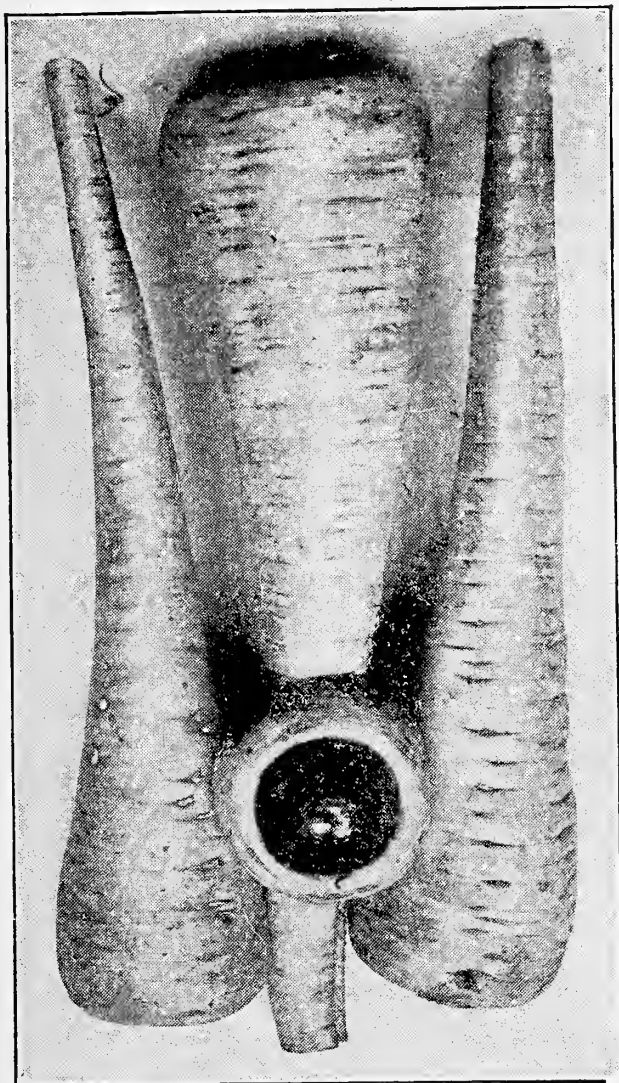
**PLAIN**—The leaves of this variety are flat, deeply cut but not curled. Very desirable for flavoring soups and stews and for drying. It is a favorite on account of its very dark green leaves as well as its hardiness of plant. The curled sorts are more extensively used for garnishing.

**SHORT THICK ROOTED**—The root is the edible portion of this variety and resembles a small parsnip both in color and shape. The flesh is white, a little dry and in flavor is similar to celeriac. The foliage is practically the same as that of Plain Parsley. The roots can be dug late in the fall and stored for winter use. They are extensively used for flavoring soups and stews. This variety is sometimes called Turnip Rooted.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Champion Moss Curled.....	.10	.15	.35	.60	1.00
Fine Double Curled.....	.10	.15	.35	.60	1.00
Large Rooted Hamburg.....	.10	.15	.35	.60	1.00
Plain .....	.10	.15	.35	.60	1.00
Short Thick Rooted.....	.10	.15	.35	.60	1.00

## PARSNIP

The value of the Parsnip as a culinary vegetable is well known but is not generally appreciated at its full value for stock feeding. On favorable soil it yields an immense crop of roots, more nutritious than turnips and very valuable for dairy stock.



HOLLOW CROWN PARSNIP

Parsnips are usually grown on deep, rich sandy soil, but will make good roots on any soil which is deep, mellow and moderately rich. Fresh manure is apt to make the roots coarse and ill-shaped. As the seed is sometimes slow and uneven in growth, it should be sown as early as possible in drills 2½ feet apart; cover one-half inch deep and press the soil firmly over the seed. Give frequent cultivation and thin the plants to six inches apart in the row.

**HOLLOW CROWN OR GUERNSEY**—An excellent variety for the table. The roots are long, with smooth white skin, uniform in shape, tender and of the best quality. The variety is easily distinguished by the leaves growing from the depression on top or crown of the root. Price—Pkt., 10c; Oz., 15c; 4 Ozs., 35c; ½ Lb., 60c; Lb., \$1.00.

## PEAS

For early peas the soil should be light and warm, but for general crop a moderately heavy soil is better. Fresh manure and very rich or wet mucky soil should be avoided, as they cause a rank growth of the vine at the cost of the quality of the peas, furthermore such soil is often the cause of early sorts maturing unevenly.

Sow as early as possible a few of some early variety in warm, quick soil, prepared the fall before, planting in double rows six to eight inches apart and two and one-half to four feet between the double rows. The general crop can be delayed until later, but we have met with better success from sowing all the varieties comparatively early, depending for succession upon selecting sorts that follow each other in maturity.

The peas will give quicker returns if covered only one inch deep, and where earliness is most important they may be treated in that way. Larger pods and more of them will be produced if the seed be planted in trenches three to six inches deep and covered with only one or two inches of soil. When the plants are five or six inches high fill the trench level with the surface. This will secure deep rooting, prevent mildew and prolong the bearing season. If the peas be covered to the full depth at first, or if water be allowed to stand in the trenches, they will not germinate or grow well.

The wrinkled varieties are more sensitive to cold, wet weather than the smooth-seeded sorts, but are of superior quality. All varieties growing more than one and one-half feet do better if staked up or brushed when four to six inches high. This support is usually given by sharpened branches of trees set between the double rows. The crop should be gathered as fast as it is fit for use. If even a few pods begin to ripen, not only will new pods cease to form, but those partly advanced will stop growing.

**EARLIEST OF ALL OR ALASKA**—By careful selection and growing we have developed a stock of this smooth blue pea of unequaled evenness in growth of vine and early maturity of pods which are filled with medium-sized, bright green peas of good flavor. The vines are of medium height, about two and one-half to three feet, and of distinctive light color. The pods are of good size, about two and one-half to two and three-fourths inches long. Seed small, smooth, and bluish green in color. This sort matures all of its crop at once and is an invaluable variety for market gardeners and canners.

**NEW PEA "EIGHT WEEKS"**—A majority of the gardeners, both home and market, are now favoring the dwarf peas—their small vines require no brushing or poles and permit planting between other crops like tomatoes, thus conserving space. In yield, too, they average well, only slightly less than the heaviest yielding taller sorts. "Eight Weeks" is one of the very shortest vined peas, growing only eight to ten inches in height. The quality is excellent. Season earlier than "Nott's Excelsior" or "American Wonder" and just as heavy a yielder. An ideal early kitchen garden sort. The garden affords no greater "luxury" than the first early fresh green peas right from the vine.

**THOMAS LAXTON**—This is a very early wrinkled variety of great merit. The vines are vigorous, of medium height, about three feet, similar to those of Gradus, but darker in color, hardier and more productive. The pods are large, often four inches long, with square ends similar to but larger, longer and darker than those of Champion of England and as uniformly well filled. The green peas are very large, of fine deep color and unsurpassed in quality. One of the very best sorts for the market and home garden.

**AMEER (Large Podded Alaska)**—Early, large, smooth, blue pea; large, broad, dark green pods. Hardy, standing early planting and popular with market gardeners.

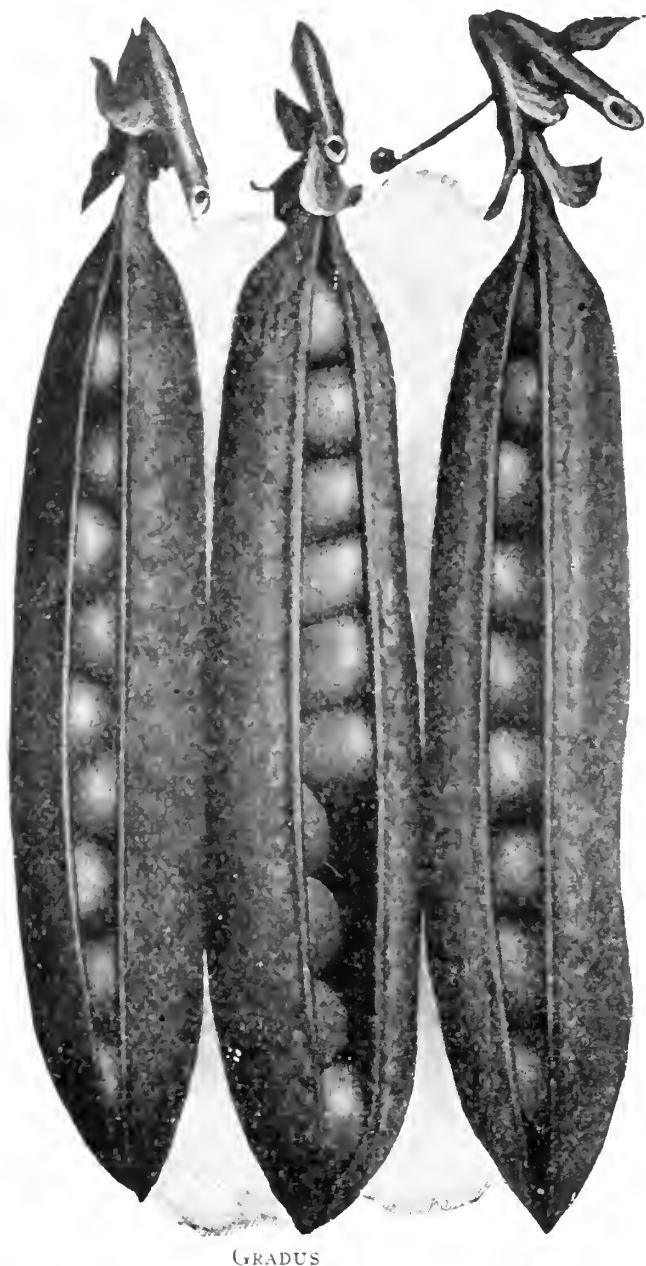
**GRADUS**—A very early wrinkled pea. The vines are similar in appearance to Telephone but of medium height, only about three to three and one-half feet. The pods are very large, about four and one-fourth inches long, very nearly as large as



EIGHT WEEKS



## PEAS—Continued



those of Telephone, uniformly well shaped, pointed, handsome and more attractive than those of the first earlies. The peas are very large, of splendid quality and beautiful light green color, which they retain after cooking. Practically the same as Prosperity.

**AMERICAN WONDER**—One of the earliest wrinkled sorts and one of the most popular. Height one foot.

**SURPRISE, OR ECLIPSE**—One of the earliest of the wrinkled sweet peas, maturing with Alaska. Height 2 feet. Foliage and pods light green. Pods  $2\frac{1}{2}$  inches long, round and square ended, containing 6 medium green peas. Very productive and uniform in maturity. Popular canners' sort.

**NOTT'S EXCELSIOR**—The best very early dwarf pea. It combines the good qualities of American Wonder and Premium Gem peas. The vines are larger and more productive than American Wonder and earlier than Premium Gem and average about twelve inches high. The pods are medium sized, about two and three-fourths inches long. The peas, in sweetness and quality, are unsurpassed. Seed medium-sized, wrinkled, green and somewhat flattened. A most desirable early sort for the market gardener and unsurpassed for the home garden.

**SUTTON'S EXCELSIOR IMPROVED**—Is a very fine first early dwarf pea, regarded by some as the best of the wrinkled sorts. It is very hardy; can be planted early; vines are 18 inches high, very prolific; pods are almost square at lower end, larger and broader than the usual dwarf pea, and dark green color.

**PIONEER**—An improved type of Laxtonian. Similar to Peter Pan, though the pods are not quite as broad and uniform. Height 16 inches. Foliage, pods and peas dark green; pods  $3\frac{3}{4}$  inches long, pointed and well filled.

**LAXTONIAN**—This handsome wrinkled pea is the largest podded of the dwarf varieties. The dark green pods are similar to Gradus in shape and splendid quality, are nearly as large in size and often mature a little earlier. Vines vigorous and productive, averaging fifteen to eighteen inches high; foliage dark green; pods about four inches in length. Seed light green, large, wrinkled, flattened, irregular in shape.

**LITTLE MARVEL**—An excellent dwarf sort for the market and home garden. The pods average a little longer than those of Premium Gem, are more attractive in shape and color and the peas are of superior quality. The vines are sturdy, nearly eighteen inches high, heavily set with straight, deep green pods, square ended at the bottom and nearly three inches in length. Its season is about the same as Premium Gem. Seed large, green, wrinkled.

**PREMIUM GEM (Improved Little Gem)**—A desirable early green wrinkled dwarf variety similar to but better than McLean's Little Gem. The vines are very productive, fifteen to eighteen inches high. The pods are of medium size, about two and three-fourths inches long, crowded with six to eight large peas of fine quality. Seed green, large, wrinkled, often flattened.

**PETER PAN**—One of the very finest of the large podded dwarf peas, on the order of Laxtonian, though somewhat earlier. Height 15 inches. Vine and foliage stout, heavy and dark green, 4 inches long, very broad, straight and pointed, containing 6 to 8 very large dark green peas of superb quality.

**BLUE BANTAM**—A splendid large-podded dwarf variety of the Laxtonian class. Height 15 inches. Vine and foliage stout and healthy, medium dark green; pointed pods deep green, 4 inches long, broad and straight, containing 6 to 8 deep green peas of excellent quality.

**HUNDREDFOLD**—Decidedly the best of the Laxtonian types: vine 16 inches high, sturdy, dark green and productive; pods dark green, 4 inches long, fairly broad and pointed, containing 8 large, dark green peas; excellent quality.

## SECOND EARLY VARIETIES

**McLEAN'S ADVANCER**—A green, wrinkled variety of medium height, about two and one-half to three feet, with long pods, about two and three-fourths to three inches long, which are abundantly produced and well filled to the ends. This pea is used very extensively by market gardeners because of its productiveness and fine appearance of its pods, and is popular with consumers on account of its quality. It is also largely used by canners.

**BLISS' EVERBEARING**—The vines are stout, of medium height, about two and one-half to three feet, bearing at the top six to ten good-sized pods, about two and one-half to three inches long. If these are picked as they mature and the season and soil are favorable, the plant will throw out branches bearing pods which will mature in succession, thus prolonging the season. The peas are large and wrinkled, tender, of superior flavor and preferred by many to any other sort.

**YORKSHIRE HERO**—The vines are stout, of medium height, about two or two and one-half feet, bearing near the top a number of rather broad pods of medium size, about three inches long, filled with large peas that remain a long time in

condition for use and which never become as hard as most sorts. The peas are of fine quality and will be preferred to any other by those who like a rich, marrow-like pea. Seed large, wrinkled and flattened.

**GREEN ADMIRAL**—Identical with The Admiral except in color of seed, which is a rich deep green. An exceptionally desirable variety for canners.

**THE ADMIRAL**—The vines of this exceptionally hardy, second early variety, are tall and vigorous, about four feet high. The pods are usually borne in pairs, are curved, bright green, about two and three-quarters inches long and are crowded with six to nine peas of good quality and deep green color. Seed wrinkled, of small medium size, clear colored. Owing to its great vigor, heat resistance and productiveness, and the fine color and suitable size of the green peas, this variety is very well adapted for canners' use.

**TELEPHONE**—This has become the leading pea with market gardeners whose trade appreciates fine appearance and high quality. The vines are tall and vigorous, growing about four feet high, with large, coarse, light colored leaves and producing an abundance of pointed pods of largest size, often four and one-half to five inches long, attractive bright green filled with very large peas, which are tender, sweet and of excellent flavor. It comes into use soon after the Premium Gem and is one of the best sorts for either home or market.

**DUKE OF ALBANY**—A very large wrinkled pea, similar to Telephone in growth and season, but darker in color of foliage and pods. The vines are tall, about four and one-half to five

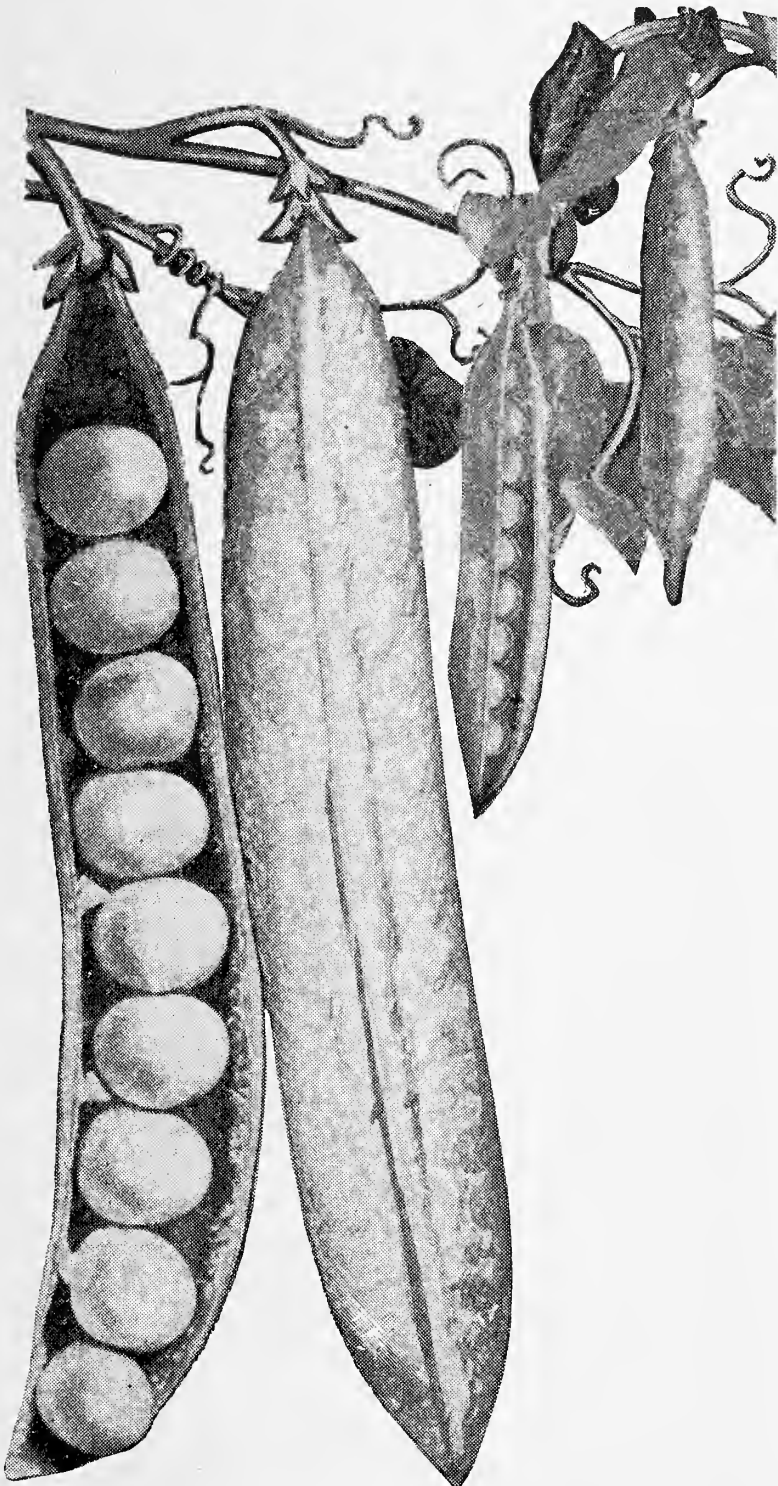
feet high, vigorous and strong growing. The pods are of largest size, often four and one-half to five inches long, straight and thick, borne in great profusion, and when in condition for picking, of a deep green color. In many localities this variety is sold as an improved strain of Telephone. Its productiveness and fine color make it a very profitable sort for market gardeners, while its splendid quality should give it a place in the home garden.





## PEAS—Continued

**ALDERMAN**—This is in many respects the very best early main crop variety of the valuable Telephone type. The vines are tall growing, about four and one-half to five feet high, dark green, vigorous and exceedingly productive. The pods are of largest size, often five to five and one-half inches long, dark green, similar to but a little larger and a shade darker in color than those of Duke of Albany and about the same in season. The peas are of largest size and unsurpassed in quality. Market gardeners are demanding the large podded, dark-colored sorts, which retain their fine appearance even after shipping a long distance. The Alderman answers these requirements and we recommend it unreservedly.



TELEPHONE PEAS

## LATER VARIETIES

**DWARF CHAMPION, RICE'S IMPROVED**—A fine main crop pea, maturing slightly later than Dwarf Defiance. Height, 2½ feet. Foliage stout, medium dark green; pods medium dark green, 4 inches long, straight, broad and square-ended, containing 7 to 8 large, medium dark green peas of fine quality; moderately productive.

**HORSFORD'S MARKET GARDEN**—A very productive main crop sort, much used by canners. Height 3 feet. Vine and foliage moderately strong and dark green; pods medium green, 3 inches long, almost blunt-ended and always well filled with 6 to 7 light green peas of good quality. The pods are always borne in pairs and produced near top of the vine.

**CHAMPION OF ENGLAND**—One of the richest, best flavored late peas; well known and popular. Height 5 feet.

**STRATAGEM, IMPROVED**—A well known old favorite sort. Height 2 feet. Vine stout and dark green; pods 4½ inches long, slightly curved, pointed and dark green, containing 8 to 9 medium green peas.

**PRINCE EDWARD**—One of the best of the large, dark podded, Telephone types, and one of the most productive. Height 4 feet. Vine and foliage stout and heavy, medium green; pods dark green, 4¾ inches long, broad and pointed, containing 8 to 9 very large medium green peas.

**PRINCE OF WALES**—Heavy cropper; peas very large, of fine quality. Popular with canners wanting a large, productive pea. Height 3 feet. Vine and foliage moderately stout and heavy and dark green; pods medium green, 3½ inches long, straight and square-ended, containing 6 large, light green peas.

**MELTING SUGAR**—(Edible pods.) We consider this the best of the edible-podded sorts, in which the pods are used when half grown and are cooked in the same way as snap beans. The pods of Melting Sugar are very large, four to four and one-half inches long, broad, often curved or twisted, and when young, stringless, very tender and finely flavored. The variety we offer, sometimes called Mammoth Melting Sugar, is rather late maturing, very prolific, strong, growing about four to five feet high, with large light colored foliage. Seed medium to large, smooth, round, light yellowish white in color.

**LARGE WHITE MARROWFAT**—The vines of this tall variety are about five feet high and of strong growth. The pods are large, about three inches long, cylindrical, surface somewhat roughened, light colored and well filled. Seed large, smooth, round and light creamy yellow. It is desirable for summer use but is not as sweet and tender as most sorts, although undoubtedly one of the most productive of the garden varieties.

**LARGE BLACK EYE MARROWFAT**—A well known tall, late maturing variety, about five feet high. It is a very prolific bearer of large pods, about three inches long. Seed large, smooth, round, light creamy yellow, with black eye. One of the best of the Marrowfat sorts.

	Pkt.	Pt.	Qt.	4 Qts.	Pk.
Earliest of All, or Alaska.....	.10	.30	.50	1.75	3.00
New Pea "Eight Weeks".....	.10	.30	.50	1.75	3.00
Thomas Laxton.....	.15	.30	.50	1.75	3.00
Ameer (Large Podded Alaska).....	.10	.30	.50	1.75	3.00
Gradus.....	.15	.30	.50	1.75	3.25
American Wonder.....	.10	.30	.50	1.60	2.75
Surprise or Eclipse.....	.10	.30	.50	1.75	3.00
Nott's Excelsior.....	.10	.30	.50	1.60	2.75
Sutton's Excelsior Improved... ..	.10	.30	.50	1.60	2.75
Pioneer.....	.10	.30	.50	1.60	2.75
Laxtonian.....	.15	.40	.65	2.25	4.00
Little Marvel.....	.10	.30	.50	1.75	3.00
Premium Gem (Improved Little Gem).....	.10	.30	.50	1.60	2.75
Peter Pan.....	.10	.40	.65	2.25	4.00
Blue Bantam.....	.10	.40	.65	2.25	4.00
Hundredfold.....	.15	.40	.65	2.25	4.00
McLean's Advancer.....	.10	.30	.50	1.75	3.00
Bliss' Everbearing.....	.10	.30	.50	1.60	2.75
Yorkshire Hero.....	.10	.30	.50	1.60	2.75
Green Admiral.....	.10	.30	.50	1.75	3.00
The Admiral.....	.10	.30	.50	1.75	3.00
Telephone.....	.10	.30	.50	1.60	2.75
Duke of Albany.....	.10	.30	.50	1.75	3.00
Alderman.....	.10	.30	.50	1.75	3.00
Dwarf Champion, Rice's Improved.....	.10	.30	.50	1.75	3.00
Horsford's Market Garden.....	.10	.30	.50	1.75	3.00
Champion of England.....	.10	.30	.50	1.60	2.75
Stratagem, Improved.....	.10	.30	.50	1.75	2.75
Prince Edward.....	.10	.30	.50	1.75	2.75
Prince of Wales.....	.10	.30	.50	1.75	2.75
Melting Sugar.....	.10	.30	.50	1.75	3.00
Large White Marrowfat.....	.10	.25	.45	1.50	2.75
Large Blackeye Marrowfat....	.10	.25	.45	1.50	2.75

Ask for Bushel Prices

## PEPPER

Peppers are most largely used for seasoning meat and vegetable dishes as well as for salads and mangoes. They are used also for making chow chow and chili sauce.

The culture is the same as for egg plant and the plants need quite as much heat to perfect them. Sow seed early in hot-bed, or about middle of spring in open seed bed, the soil being light and warm. When three inches high transplant in rows about two and one-half feet apart and two feet apart in the row. Cultivate and keep free from weeds. Guano, hen dung, or any other bird manure hoed into the surface soil when the plants are about six inches high, will undoubtedly increase the product.

**SWEET MOUNTAIN, OR MAMMOTH**—Similar to Bull Nose, but more elongated; pendant fruits often grow six inches long by four inches in diameter; bright red, mild and sweet.

**LONG RED CAYENNE**—A well known medium early variety, having a slender, twisted and pointed pod about four inches long. The color is deep green when fruit is young; bright red when ripe. The flesh is extremely strong and pungent.

**LARGE BELL OR BULL NOSE**—Sometimes called Sweet Mountain. The plants are vigorous, about two feet high, compact and very productive, ripening their crop uniformly and early. The fruits are large, with thick, mild flesh of excellent quality for use in salads and mangoes or stuffed peppers. The color is deep green when fruit is young; bright crimson when ripe.

## PEPPER—Continued

**RUBY KING**—An improved American variety, very large and attractive. The plants are about two and one-half feet high, vigorous, compact and productive. The fruits are often four to four and one-half inches long and of deep green color when young, bright red when ripe. The flesh is thick and mild flavored. One of the best varieties for mangoes or stuffed peppers.

**CHINESE GIANT**—One of the very largest of the mild red varieties. Plant of short, stocky growth, with light green foliage; fruits pendant, thick, blocky and square ended, 4 to 5 inches in diameter and of equal length; color, brilliant glossy scarlet

**PIMENTO**—The fruits of this very productive sort are exceptionally smooth and glossy, of good size, medium length and attractive color. The flesh is very thick and solid, mild and of very fine flavor. Desirable not only for salads and stuffed peppers, but it is also the sort used largely by canners. The plants are vigorous and upright, about two to two and one-half feet high, with short, broad, dark green leaves. The fruits are deep green when young, becoming deep red as they mature.

**GIANT CRIMSON**—The fruits of this very desirable sort are of the largest size, ripen earlier than any of the other very large sorts and average heavier, as the flesh is exceptionally thick. The plants are vigorous and upright, about two and one-half to three feet high, larger than those of Chinese Giant and more productive. The color is deep green when fruit is young, deep crimson when matured. The flavor is mild. One of the very best sorts for salads and large mangoes.



BULL NOSE

**NEAPOLITAN**—The earliest and most productive large variety and one of the sweetest and most mild. Fruit of upright growth, four inches long and two inches thick; bright red.

**RED CHILI**—Of low growth, forming a spreading plant about 18 inches high; fruit usually erect, about one and a half inches long, cone-shaped, bright red and very hot; exceedingly prolific; used for pepper sauce.

	Pkt.	½ Oz.	Oz.	4 Ozs.
Sweet Mountain or Mammoth.....	.10	.20	.30	.85
Long Red Cayenne.....	.10	.20	.30	.85
Large Bell, or Bull Nose.....	.10	.20	.30	.85
Ruby King.....	.10	.20	.30	.85
Chinese Giant.....	.10	.35	.60	1.60
Pimento.....	.10	.20	.30	.85
Giant Crimson.....	.10	.25	.40	1.25
Neapolitan.....	.10	.20	.30	.85
Red Chili.....	.10	.20	.30	.85

## PUMPKIN

Pumpkins are less sensitive than melons or cucumbers to unfavorable conditions of soil and climate but are cultivated the same, though on a larger scale. They are raised between hills of corn or in fields by themselves, but more properly belong to the farm than the garden, as they readily mix with and injure the quality of the finer squash. After danger of frost is over, plant the seed in hills eight to ten feet apart each way, dropping about a dozen seeds in a hill. The soil should be made as rich as possible. If planted with corn two or three seeds a rod apart each way will be sufficient. When danger from bugs is past, thin to three plants to a hill.

**PIE**—The fruits are of medium size and nearly round. The skin is light yellow, smooth and is covered with a fine gray netting. The flesh is light yellow, very thick, sweet and finely flavored. This variety makes very delicious pies.



SUGAR PIE

**SUGAR OR NEW ENGLAND PIE**—This variety is small, but of most excellent quality for pies. The fruits are deep orange, eight to ten inches in diameter, round or somewhat flattened and slightly ribbed. The flesh is rich deep yellow, fine grained and very sweet.

**GREEN STRIPED CUSHAW**—Fruits very large, with crooked neck. Color creamy white, irregularly striped or traced with green. Flesh light yellow, very thick, rather coarse but sweet. This sort is very productive and popular in some sections.

**CONNECTICUT FIELD**—Generally used for planting in corn for stock feeding, and also for making pies; fruit rather oblong, flattened at the ends, often 15 inches in diameter; smooth, hard, reddish-orange, distinctly ribbed skin with rich, orange-yellow flesh.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Pie.....	.10	.15	.35	.60	1.00
Sugar, or New England Pie....	.10	.15	.35	.60	1.00
Green Striped Cushaw.....	.10	.15	.35	.65	1.25
Connecticut Field.....	.10	.15	.30	.55	.85

## RADISH

For forcing sow in hotbed or under glass in rich, sandy soil made perfectly level. Scatter evenly over the surface from fifty to one hundred seeds to the square foot and cover with one-half inch of soil sifted on. Careful watering to keep soil moist, even, moderate temperature and good ventilation are required for rapid and best root development. If the bed is a good one the whole crop can be marketed in twenty-one to forty days after planting.

For open ground culture sow in rich, sandy soil as soon in the spring as it is fit to work, in drills twelve to eighteen inches apart, and thin out the plants to prevent crowding. A good dressing of nitrate of soda will greatly stimulate growth and insure tender, brittle roots. Successional sowings from one week to ten days apart will keep up a supply. After the hot weather of summer begins it is better to sow the summer and winter varieties, as they do not become tough and stringy nor pithy so quickly as the early sorts.



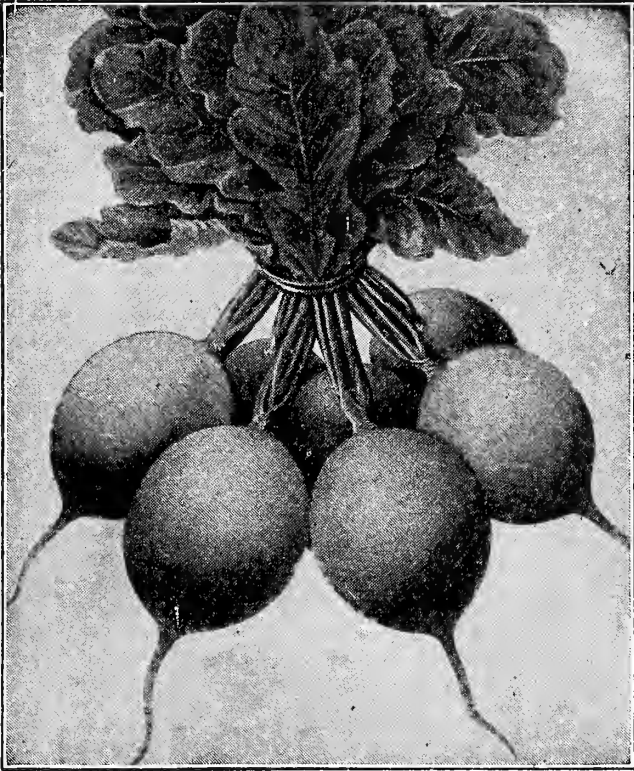
SCARLET TURNIP WHITE TOP



## RADISH—Continued

Radishes are subject to root maggots, which make them useless for culinary purposes. We know of no certain remedy for this pest. We have found that the best preventive measures are to avoid the use of rank manure and not to sow on ground where radishes, turnips or cabbages were grown the year previous.

We have been very careful to secure the very best seed possible and there is none sold under other names which is better than that of the varieties we offer. What is often called "scarlet" in radishes is more or less of a rosy carmine color. Our "deep scarlet" is of a much deeper red.



VICK'S SCARLET GLOBE

**EXTRA EARLY SCARLET TURNIP, FORCING**—A round, bright red variety for forcing and greenhouse use.

**EARLY SCARLET TURNIP, WHITE TIPPED**—One of the best early radishes for the home garden and a great favorite in large markets for early planting outdoors. It is but little later than Early Scarlet Turnip, White Tipped, Forcing, and will give entire satisfaction where extreme earliness and small tops are not the chief considerations. The roots are nearly round, slightly flattened on the under side. The color is very bright, deep rose-carmine scarlet with a distinctly white tip. The flesh is white and of the best quality. The stock we offer is exceptionally attractive in its splendid coloring. The scarlet is unusually deep and affords a distinct contrast with the large, clear white tip.

**FRENCH BREAKFAST**—A quick growing, small, olive-shaped radish about one and one-half inches long by five-eighths to three-fourths of an inch in diameter when fully grown. The color is beautiful deep rose-scarlet except a little clear white about the tip. This is an excellent variety for planting outdoors for the home garden. Its small tops and earliness make it also desirable for growing under glass.

**ROSY GEM**—For forcing or open culture; round, deep scarlet on top, blending into white at the bottom. A very fine sort.

**WHITE STRASBURG**—Roots are about five inches long, thick at the shoulder and abruptly tapering; skin and flesh pure white, and remain firm and brittle longer than most varieties.

**EARLY SCARLET TURNIP**—A round, red, turnip-shaped radish with small tops of very quick growth, deserving general cultivation on account of its rich, scarlet-red color, almost crimson, and its white, crisp and tender flesh. The roots often grow one inch long by one and one-eighth inches in diameter before becoming pithy. This is a standard variety for early outdoor planting for the home garden and market.

**EXTRA EARLY SCARLET TURNIP, WHITE TIPPED, FORCING**—A rapid forcing variety; similar in general characteristics to Scarlet Turnip White Tipped, but a little earlier and with a shorter leaf.

**VICK'S SCARLET GLOBE**—We have an exceptionally fine stock of this superb variety. It is one of the very earliest of the forcing radishes and does equally well outside; roots are of fair size, globe-shaped and with a small top; always crisp and tender; color a bright scarlet.

**EARLY WHITE GIANT SUMMER**—The roots are large, often four inches in diameter, white and are usually top shaped. The flesh is white and crisp, and keeps remarkably well, so that those not used in the summer or fall can be stored for early winter use.

**LONG BRIGHTEST SCARLET (Long Cardinal)**—One of the best colored, most handsome as well as the earliest of the long scarlet radishes; crisp and tender until full grown; roots

not quite so long as Long Scarlet, and of a bright, vivid scarlet color, tipped white; a good forcing sort with a small top.

**RICE'S SAXA**—The earliest of the forcing radishes, and one of the slowest to shoot to seed. Round, bright scarlet and with the smallest possible top. We have an excellent stock of this radish and can highly recommend it.

**LONG WHITE LADY FINGER (White Vienna)**—An early maturing, long white summer radish; roots white, slender and smooth, are 6 to 7 inches long, tapering slightly at the top. This variety grows more above ground than Icicle and consequently is more or less tinged with green at the top of the root.

**ICICLE**—The leading long white radish and one of the earliest; roots are somewhat shorter, broader at the top and more square-shouldered than Lady Finger, also matures a little earlier; about 6 inches long and white throughout.

## WINTER VARIETIES

Seed for winter varieties should be sown about the first of August in rich, warm sandy loam, in rows about twenty inches apart, covering half an inch deep. When well up thin to three inches apart in the row and give frequent cultivation. For winter use the roots should be pulled and packed in damp sand and stored in a cool cellar.

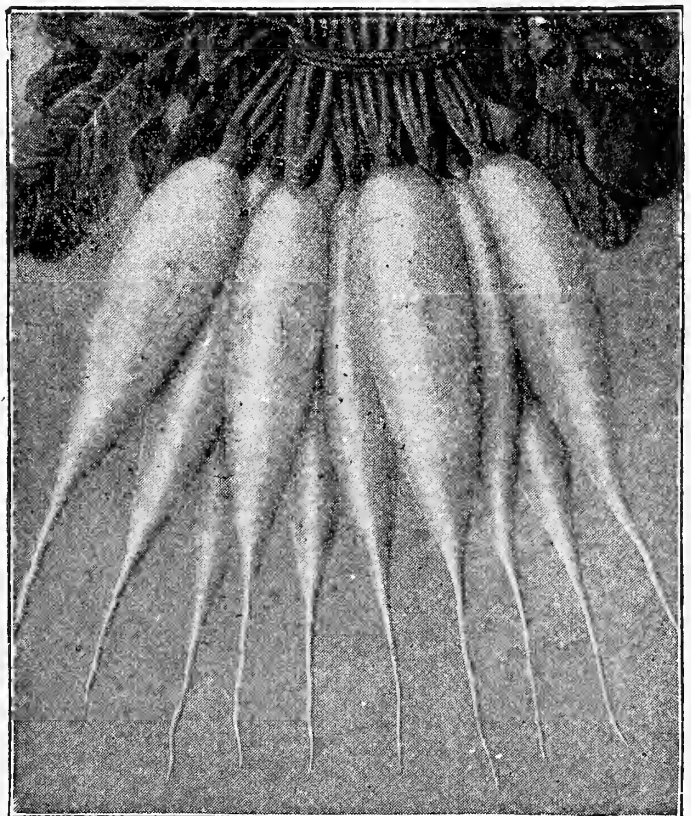
**CALIFORNIA MAMMOTH WHITE CHINA**—The roots of this very large white winter sort grow nine to twelve inches long by three to four inches or more in diameter just below the shoulder, tapering regularly to the tip. The flesh is very crisp and solid, decidedly pungent but well flavored, keeping well through the winter. The variety matures later than Celestial and the roots are not as mild but they attain a larger size under favorable conditions. For table use they are pulled before fully grown.

**LONG BLACK SPANISH**—One of the latest and hardiest long garden radishes, especially adapted for winter use. The roots are long, thick, almost black, somewhat wrinkled. The flesh is white, of firm texture, decidedly pungent but well flavored. The roots when mature are usually seven to nine inches long by two to three inches in diameter at thickest part.

**CELESTIAL**—This excellent variety is sold also as Chinese White Winter. The roots are long, cylindrical, with beautiful white skin and flesh, the whitest and usually the least pungent of the winter varieties. When fully mature the roots are six to nine inches long by about two and one-half to three and one-half inches in diameter. The flesh is compact and crisp.

**SCARLET CHINA**—This is an extensively grown variety for fall and winter use. It is known also as Chinese Rose. The roots are cylindrical, or largest near the bottom, stump-rooted or blunt at both ends. The skin is smooth and of a bright deep rose color. The flesh is white, firm, crisp and pungent. The tops are moderately large, with leaves distinctly cut and divided; leaf-stems tinged with rose. The roots are usually four to five inches long by about one and one-half to two inches in diameter when fully mature, sometimes growing considerably thicker. It is a desirable late maturing garden sort.

**WHITE GIANT STUTTGART**—The roots are large, top-shaped and frequently four inches in diameter; of a clear white color, a fine summer or fall radish.



ICICLE RADISH



RADISH—Continued

**ROUND BLACK SPANISH**—The roots are round, sometimes slightly top-shaped, three or four inches in diameter. The skin is almost black. The flesh is white, very compact, decidedly pungent, but well flavored. The variety keeps well through the winter.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Extra Early Scarlet Turnip.					
Forcing .....	.10	.15	.30	.50	.90
Early Scarlet Turnip, White					
Tipped .....	.10	.15	.30	.50	.90
French Breakfast.....	.10	.15	.30	.50	.90
Rosy Gem.....	.10	.15	.30	.50	.90
White Strasburg.....	.10	.15	.30	.55	1.00
Early Scarlet Turnip.....	.10	.15	.30	.50	.90
Extra Early Scarlet Turnip.					
White Tipped Forcing.....	.10	.15	.30	.50	.90
Vick's Scarlet Globe.....	.10	.15	.30	.50	.90
Early White Giant Summer....	.10	.15	.30	.55	1.00
Long Brightest Scarlet (Long					
Cardinal) .....	.10	.15	.30	.50	.90
Rice's Saxa.....	.10	.15	.30	.50	.90
Long White Lady Finger					
(White Vienna) .....	.10	.15	.30	.55	1.00
Icicle .....	.10	.15	.30	.55	1.00
California Mammoth White					
China .....	.10	.15	.30	.55	1.00
Long Black Spanish.....	.10	.15	.30	.50	.90
Celestial .....	.10	.15	.30	.55	1.00
Scarlet China.....	.10	.15	.30	.55	1.00
White Giant Stuttgart.....	.10	.15	.30	.55	1.00
Round Black Spanish.....	.10	.15	.30	.50	.90

RHUBARB

**Culture**—Rhubarb succeeds best in deep, somewhat retentive soil. It may be propagated by seeds, but is usually grown from roots. But, whether grown from seed or roots, a deep, rich soil, trenched to the depth of 2 or 3 feet, is required to insure the full development of the leaf-stalks. Sow the seed in April in drills, and when the plants are of fair size, thin to 9 inches apart in the drill. In the fall following, or the next spring, the plants will be large enough to transplant into rows 3 feet apart, setting them the same distance apart in the rows. When grown from roots, they are usually set in the spring, and sometimes in the fall; either spring or fall will do, but the spring is considered best. One ounce will produce 1,000 plants.

**MYATT'S LINNEUS GIANT**—An early and very fine variety; leaves and stalks of immense size. Juicy and tender; grows quickly, producing fine succulent stalks. Price—Pkt., 10c; Oz., 20c; 4 Ozs., 60c.

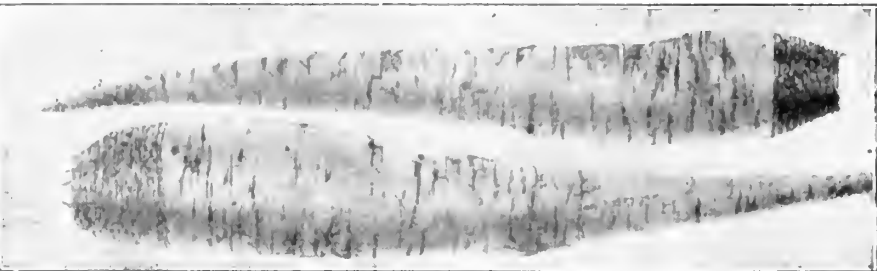
ROQUETTE

A hardy annual, the leaves of which are long, smooth and glossy, and when young are used like mustard for salads. When in condition for use the plants are from eight to ten inches high. Sow the seed in shallow drills about sixteen inches apart, in early spring and for succession every few weeks thereafter. Water freely. The young leaves will be ready for cutting in about six weeks from time of planting. Price—Pkt., 10c; Oz., 20c; 4 Ozs., 60c.

SALSIFY or VEGETABLE OYSTER

One of the most desirable winter vegetables. The roots when cooked are very palatable and nutritious and are served in a variety of ways. The flavor is similar to oysters. Salsify succeeds best in a light, well enriched soil, which should be stirred to a good depth. Coarse and fresh manure should be avoided, as it will surely cause the roots to grow uneven and ill-shaped. Sow early and quite deep, giving the general culture recommended for parsnip. The roots are perfectly hardy and may remain out all winter, but should be dug early in spring, as they deteriorate rapidly after growth commences. Frost does not injure the roots, but before the ground freezes a quantity for winter use may be stored in a pit or in a very cool cellar.

**MAMMOTH SANDWICH ISLAND**—This variety is large and strong growing, with long, smooth, white, tapering roots, and is less liable to branch than the other sorts. The tops are grassy. It is invaluable for market gardeners' use. Price—Pkt., 10c; Oz., 25c; 4 Ozs., 75c; ½ Lb., \$1.25; Lb., \$2.50.



MAMMOTH SANDWICH ISLANDS SALSIFY

SORREL

The improved varieties of Sorrel, when well grown and cooked like spinach, makes a palatable dish. Sow in drills early in spring and thin the seedlings to six or eight inches apart in the row. One may commence cutting in about two months and the plants will continue in full bearing from three to four years.

**LARGE LEAVED FRENCH**—The best garden variety, having large, pale green leaves of fine quality. Price—Pkt., 10c; Oz., 20c; 4 Ozs., 65c; ½ Lb., \$1.00; Lb., \$2.00.



LONG STANDING SPINACH

SPINACH

No plant makes more palatable and nutritious greens than spinach when properly prepared. Seed should be planted in very rich ground, the richer the better. Sow in drills sixteen to twenty inches apart and thin to about six inches apart when the leaves are an inch wide. All should be cut before hot weather, while young and tender. For early spring use sow early in autumn and protect the plants with a light covering of leaves or straw, or plant as soon as the land can be worked in the spring. Under favorable conditions the leaves may be large enough for eating in eight weeks.

**SAVOY LEAVED**—This sort is known also as Bloomsdale and as Norfolk Savoy Leaved. It is a very early variety and one of the best to plant in autumn for early spring use. The plant is of upright growth, with thick, glossy, dark green leaves of medium size, pointed but quite broad, and crumpled or blistered like those of Savoy cabbage. It is hardy and grows rapidly to a suitable size for use, but runs to seed quickly in warm weather. Seed round. This spinach is suitable for the home and garden and is much used by southern truckers.

**LARGE VIROFLAY**—For either spring or fall sowing. Plant of upright growth; leaves are very large, broad, thick and arrow-shaped, with a 4-inch petiole, much crumpled and dark green in color. Desirable for canning because of its clean, upright leaves.

**LONG SEASON**—A very dark green, crumpled variety, in general appearance similar to Savoy Leaved but considerably larger and broader in leaf, less crumpled and very much longer standing. Seed round. One of the very best for early spring and successional planting.

**EARLY GIANT THICK LEAVED**—A strong growing early market variety with large, thick leaves of fine, deep green color. The leaves are usually rounded or broad arrow-shaped and the surface is fairly smooth or slightly crumpled. Seed round. It is one of the most desirable medium early varieties and is suitable for the home garden as well as market.

**VICTORIA**—An excellent variety, forming very large, exceedingly thick, very dark green leaves slightly crumpled in the center. The plant is large, compact and procumbent. The season is intermediate. The leaves are usually blunt or rounded at end but sometimes broad arrow-shaped. Seed round. The variety becomes fit for use nearly as early as any, remaining so much longer than most kinds. It is desirable for the market or home garden.

## SPINACH—Continued

**LONG STANDING**—An improved round seeded strain of excellent quality, comparatively late in season, but after reaching maturity it remains in condition for use much longer than most sorts. The plant is very large, becoming rather procumbent when mature. The leaves are usually very broad arrow-shaped or rounded, comparatively smooth and dark, rich green. This sort is extensively used by market gardeners.

**NEW ZEALAND SPINACH**—This is not strictly of the spinach family. The tender shoots are of excellent quality and may be cut throughout the summer. One plant will spread over two feet. The leaves are quite small, broad and pointed. Plant three to four seeds in hills, three feet apart each way. Soak in lukewarm water for a day before planting.

	Pkt.	4 Ozs.	Lb.
Savoy Leaved.....	.10	.20	.40
Large Viroflay.....	.10	.20	.35
Long Season.....	.10	.20	.35
Early Giant Thick Leaved.....	.10	.25	.40
Victoria .....	.10	.20	.35
Long Standing.....	.10	.20	.35
New Zealand Spinach.....	.10	.30	.80

## SQUASH

The squash is one of the most nutritious and valuable of garden vegetables. The summer varieties come to the table early in the season, while the fall and winter sorts can be had from August until the following spring. The winter varieties are very well adapted for stock feeding and we heartily recommend them for that purpose.

Squash plants are very tender and sensitive to cold and so planting must be delayed until settled warm weather. General methods of culture are the same as for cucumbers and melons, but the squash is less sensitive to unfavorable conditions of soil. Summer varieties should be planted four to five feet apart each way and winter sorts eight to twelve. Three plants are sufficient for a hill. In gathering the winter sorts care should be taken not to bruise or break the stem from the squash, as the slightest injury will increase the liability to decay. Winter squashes should be stored in a moderately warm, dry place, and the temperature kept as even as possible. For those who desire very early squashes, seed can be planted in boxes and transplanted.

Insect pests that attack the vines when small, such as the striped beetle, may be kept off by frequent dustings with air-slaked lime, tobacco dust, soot or sifted ashes diluted with fine road earth. For the large squash bug, a good remedy is a kerosene emulsion. Probably the most effective way is to place a small piece of board, about 4x12 inches, on the ground near the plant. Towards evening or early in the morning the bugs may be gathered from under the boards and destroyed.

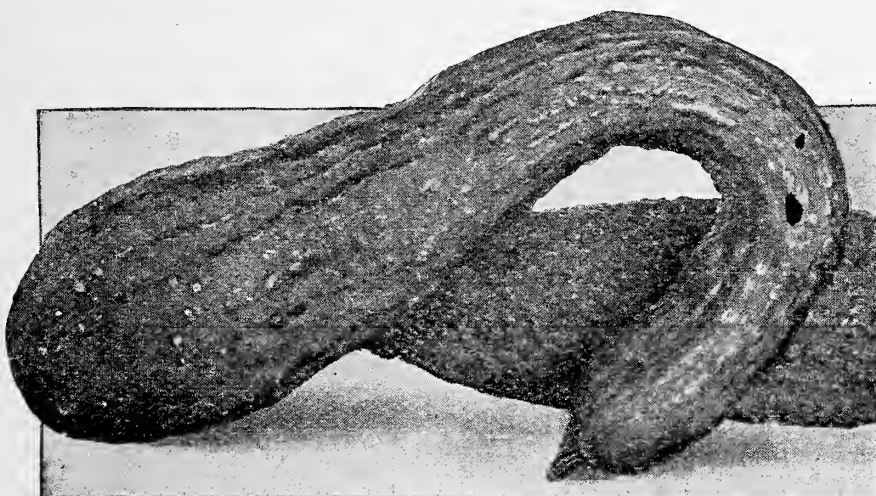
## SUMMER VARIETIES

**SUMMER CROOKNECK**—The well known standard sort, early and very productive. It matures the bulk of its crop a little earlier than the Mammoth Summer Crookneck. The fruits when fully grown are about one foot long, with uniformly crooked neck and surface densely warted. The color is bright yellow. The shell is very hard when the fruit is ripe.

**MAMMOTH SUMMER CROOKNECK**—The largest and one of the earliest of the crookneck summer squashes. The vines are of bush habit, larger and more vigorous than Summer Crookneck. The fruits, when mature, are very large, often one and one-half to two feet long, with exceedingly warted surface. The color is deep yellow. Its large size and attractive color make this variety a favorite with market gardeners as well as for home garden use.

**EARLY WHITE BUSH SCALLOP**—This is the well known, very early, somewhat flattened scalloped bush squash of medium size. The color is creamy white with comparatively smooth surface. The vines are vigorous and very productive. This variety is also known as Patty Pan or Cymling.

**EARLY YELLOW BUSH SCALLOP**—A flattened, scalloped bush squash of largest size. The skin is deep orange. The flesh is pale yellow and of very good flavor. We have developed



MAMMOTH SUMMER CROOKNECK



WARTED HUBBARD

a strain of the old Yellow Bush Scallop which is fully as productive but uniformly larger and flatter than the old stock and has a very small seed cavity. This sort is extensively used for the home garden and market where a very large yellow scalloped squash is wanted.

**FORDHOOK**—A small, oblong variety, excellent for summer or winter; fruits 8 to 10 inches long, slightly ridged; skin smooth, thin and yellow; flesh very thick, straw colored, extremely dry and sweet.

**GOLDEN SUMMER CROOKNECK**—A standard, early and productive summer sort; fruits about a foot long, much warted and of a bright yellow color.

**THE FAXON**—Of small to medium size and oblong in form; flesh orange and of fine quality. This sort characteristically varies from a fixed type, both as to form and color.

**DELICATA**—Small, oblong variety for summer or winter use; shell creamy-yellow, sometimes mottled green; flesh dry and excellent.

**ITALIAN VEGETABLE MARROW (Cocozella di Napoli)**—The vines are of bush habit and produce large, much elongated fruits, dark green at first, but as they mature becoming marbled with yellow and lighter green in stripes. The fruits are in best condition for the table when six to eight inches long, but can be used when somewhat larger. The young fruits, when sliced and fried in oil, constitute a vegetable delicacy that is very tender and marrowy.

**IMPROVED MARBLEHEAD**—Resembles Hubbard, but is earlier and the skin more smooth; has a hard blue-gray shell and orange-yellow flesh.

## AUTUMN AND WINTER VARIETIES

**DELICIOUS**—This is a fall and winter variety of medium size. Although not very thick the shell is rather hard and strong. Usually dark green but sometimes lighter in color and mottled. The flesh is thick, very fine grained and bright yellow in color. It is considered by many to be the best for markets where quality is appreciated as well as very desirable for the home garden. We have by continued and careful selection made a marked improvement in uniformity of type and we believe the seed we offer is equal to the best obtainable.

**BOSTON MARROW**—This is a very productive fall and winter variety of medium to large size, oval shape, and thin skin. It is much used for canning and making pies. The fruits when ripe are bright orange with a shading of light cream color. The flesh is of rich salmon-yellow color, fine grained and of excellent flavor, but not as dry as the Hubbard.



## SQUASH—Continued

**GOLDEN HUBBARD**—Fruits of medium size, weighing from six to eight pounds and in shape are like the Hubbard, although in condition for use decidedly earlier. They are long keepers and can be held over in good condition for spring use. The shell is moderately warted, hard, strong and of a beautiful orange-red color, except for a bit of olive-green on the blossom end. The flesh is deep orange, dry, fine-grained and richly flavored. A very superior table variety.

**WARTED HUBBARD**—One of the best of the winter squashes. The vines are vigorous and very productive. The fruits are large, heavy and moderately warted, with a very hard shell. The skin is uniformly dark bronze green. The flesh is bright orange-yellow, fine grained, thick, dry and richly flavored. This squash can be kept in good condition until spring. Our stock of this standard home garden and market variety is carefully selected in regard to quality of the flesh and color of the shell and is much superior to that sold as Chicago Warted or Warty Hubbard.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Summer Crookneck.....	.10	.15	.40	.65	1.25
Mammoth Summer Crookneck.....	.10	.15	.40	.65	1.25
Early White Bush Scallop.....	.10	.15	.40	.65	1.25
Early Yellow Bush Scallop.....	.10	.15	.40	.65	1.25
Fordhook .....	.10	.15	.40	.65	1.25
Golden Summer Crookneck.....	.10	.15	.40	.65	1.25
The Faxon.....	.10	.15	.40	.65	1.25
Delicata .....	.10	.15	.45	.85	1.50
Italian Vegetable Marrow (Cocozella di Napoli).....	.10	.15	.45	.85	1.50
Improved Marblehead.....	.10	.15	.45	.85	1.50
Delicious .....	.10	.15	.40	.65	1.25
Boston Marrow.....	.10	.15	.40	.65	1.25
Golden Hubbard.....	.10	.15	.40	.65	1.25
Warted Hubbard.....	.10	.15	.40	.65	1.25

## TOBACCO

The seed should be sown as early as possible after danger of frost is over. It is customary to burn a quantity of brush and rubbish in the spring on the ground intended for the seed bed; then dig and pulverize the earth and mix with the ashes, after which the seed may be sown and covered very lightly. When the plants are about six inches high, transplant into rows four or five feet apart each way. Cultivate thoroughly with plow and hoe.

**BIG HAVANA**—A hybrid Havana or Cuban seed leaf. It is a heavy cropper and a very early cigar variety.

**WHITE BURLEY**—A favorite for plug fillers and wrappers.

**CONNECTICUT SEED LEAF**—A hardy cigar variety, well adapted to growing in the middle and northern states.

**HAVANA**—The leaf is very thin and is of fine texture. The variety is much used for cigar wrappers.

	Pkt.	½ Oz.	Oz.
Big Havana.....	.15	.25	.40
White Burley.....	.15	.25	.40
Connecticut Seed Leaf.....	.10	.20	.40
Havana .....	.15	.25	.40

## TOMATO

Tomatoes do best on light, warm, not over-rich soil and success depends largely upon securing a rapid, vigorous and unchecked growth during the early part of the season. Sow in hotbed or in shallow boxes in the house from six to eight weeks before they can be set out of doors, which is when danger from frost is past; when the plants have four leaves transplant into shallow boxes or cold-frames, setting them four or five inches apart; give plenty of air and endeavor to



STONE

secure a vigorous but steady and healthy growth, so that at the time of setting in the open ground they will be strong and stocky. Even a slight check while the plants are small will materially diminish their productiveness.

Set out of doors as soon as danger from frost is over, but before doing so harden off the plants by gradually exposing them to the night air and by the withdrawal of water until the wood becomes hard and the leaves thick and of a dark green color. Transplant carefully and cultivate well as long as the vines will permit. If to be grown without training, the plants are usually set from three to four feet apart each way, according to the vigor of growth of the variety.

To insure best results in respect to early ripening as well as the amount and perfection of fruit, it is advisable to train up and trim the vines, especially if the patch is rather small. When the plants have been properly started and are six to ten inches high they will begin to throw out branches. Select the largest and most vigorous of these and pinch off all others except this one and the main stem. Care must be exercised not to pinch off the fruiting branches which, as they appear, can be distinguished by the buds that are formed very early. In a short time these two remaining branches will become equally vigorous and as ordinary varieties will grow to six feet during the season, they should be securely tied at intervals of about ten inches to a long stake, preferably two inches square, which has been securely set in near the root of the vine.

Fruit will set to almost any height desired if all side branches are kept trimmed off at intervals of a week. By such a method of training and trimming the fruits are kept clear from the ground and with free access of sunlight they ripen much earlier, the vitality, otherwise exhausted in superfluous branches and leaves, is utilized in forming fruits of largest size, greatest perfection of shape and best quality.

**EARLIANA**—Our strain of this first early sort is earlier and decidedly superior to much that is sold as Sparks' Earliana, and the extreme earliness of its large, smooth fruits makes it a very profitable tomato for market gardeners, as well as desirable for the home garden. The vines are small but vigorous and productive. The fruits are bright deep scarlet, medium to large, nearly round and exceptionally smooth for so early a variety. The fruits are borne in clusters near the base of the plant and the bulk of the crop ripens very early.

**JOHN BAER**—An extra early scarlet fruited variety of superior merit. The vines are very hardy and exceptionally productive. The fruits are the largest of the extra early sorts and are also most attractive in color. They are nearly round, smooth, firm and of excellent quality. It is one of the very earliest to ripen its first fruits and it continues to furnish marketable fruits much longer than other very early varieties. It is an invaluable sort for market gardeners, shippers and canners.

**BONNY BEST**—The fruits of this desirable early sort are most attractive in shape and color. The crop ripens more uniformly than any other early scarlet fruited sort, and is of superior solidity and interior color. The vines are vigorous, and produce a good crop of exceptionally round and deep fruits, bright deep scarlet in color and of very good quality. One of the best for gardeners whose trade demands fruits of beautiful shape and color. A very good variety for the early market and home garden.

**BEAUTY**—The vines are large, vigorous and very productive. The fruits are large, purplish pink, exceptionally smooth and uniform in size, very solid and of excellent quality. This is one of the best midseason or main crop purplish pink sorts for table use.

**PERFECTION**—A medium to large main crop tomato of deep crimson-scarlet color and of good quality. It is much used for the home garden. The vines are large, vigorous and productive. The fruits are nearly round, uniformly smooth and even in size.

**STONE**—One of the largest and most solid main crop or late bright red varieties. It is unsurpassed for slicing and canning. The vines are large, vigorous and very productive. The fruits are bright deep scarlet, oval and very deep, exceptionally smooth and uniform in size. Our stock is distinctly superior to most of that offered under this name, being larger, smoother, more uniform and better colored.

**MATCHLESS**—A main crop variety, very popular in the east. The fruits are very large, smooth and symmetrical, ripening well to stem. The flesh is rich, bright red in color and of fine quality, although possibly not quite as firm as Improved Trophy or Stone.

**PONDEROSA**—A purplish pink main crop tomato of the largest size. The vines are vigorous and very productive. The fruits are very solid, with exceptionally few seeds, fairly smooth and considered of very good quality, especially by those who prefer a tomato quite free from acid. It is very desirable for slicing.

**DWARF STONE**—The vines are dwarf but vigorous and productive. Although an intermediate or rather late maturing variety, the fruits are of good color, being an attractive bright red, exceedingly smooth and very solid. It is a desirable sort for the home garden. We consider this the best of the large fruited dwarf tomatoes.

**DWARF CHAMPION**—This is sometimes sold as the "Tree Tomato." It is a second early or main crop, purplish pink variety, especially desirable where garden space is limited. The vines are about two feet high, vigorous, upright and compact. The fruits are medium sized, exceptionally smooth and of very good quality. Our stock is a very superior strain with more even, smoother fruit than the original.

TOMATO—Continued

**CHALK'S EARLY JEWEL**—One of the very best early tomatoes yet introduced. The vines are vigorous and very productive. The fruits are bright deep scarlet-red, nearly round or somewhat flattened, smooth, of large size and most excellent quality. They ripen very early and the pickings continue through a long season. One of the very best second early scarlet fruited sorts and on account of its large size, excellent quality and productiveness one of the most satisfactory sorts for the home garden.

**YELLOW PLUM**—Fruits plum shaped, of clear, deep yellow color; flesh yellow and finely flavored. Esteemed for preserves.

**TRUCKER'S FAVORITE**—A popular purple-fruited sort on the order of Beauty and of the same general habit of growth; the fruit is, however, more flat.

**GOLDEN QUEEN**—The fruits are large and smooth, of bright golden yellow color, sometimes with a slight blush of red. They are as smooth and well shaped as the best of the red varieties and are of superior flavor.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Earliana .....	.10	.30	1.00	1.75	3.50
John Baer.....	.10	.30	1.00	1.75	3.50
Bonny Best.....	.10	.30	1.00	1.75	3.50
Beauty .....	.10	.30	.90	1.65	3.00
Perfection .....	.10	.30	.80	1.50	3.00
Stone .....	.10	.30	1.00	1.75	3.50
Matchless .....	.10	.30	.90	1.65	3.00
Ponderosa .....	.10	.40	1.50	2.50	5.00
Dwarf Stone.....	.10	.30	1.00	2.00	3.75
Dwarf Champion.....	.10	.30	1.10	2.00	4.00
Chalk's Early Jewel.....	.10	.30	1.00	1.75	3.50
Yellow Plum.....	.10	.40	1.25	2.25	4.50
Trucker's Favorite.....	.10	.30	.90	1.65	3.00
Golden Queen.....	.10	.40	1.35	2.50	5.00

TURNIP

The value of Turnips and Ruta Bagas for feeding stock in fall and winter is not fully appreciated, as they are much liked by all kinds of stock and serve to keep them in good condition. They should not be fed, however, in large quantities to milch cows, or the flavor of the milk will be disagreeably affected. We recommend that farmers increase their sowings largely, for we are sure the crop will prove remunerative for stock feeding as well as for table use when the roots are comparatively small.

Both of these wholesome vegetables are very easily affected in their form and flavor by soil, climate, and mode of culture. The Turnip plant is distinguished from the Ruta Baga by its rougher leaves; the root usually matures earlier and is smoother.

For summer use sow early in spring in light, rich or new soil, in drills one and one-half to two feet apart, according to the size and variety and cover one-half inch deep, or sow broadcast, but in either case be sure to have the ground rich and freshly stirred. Thin early and keep free from weeds so that the young plants will not be checked in growth. Any overcrowding will result in rough and poorly flavored roots. It is important to get the spring and summer crop started very early so that the turnips may have time to grow to sufficient size before hot weather causes them to become tough and bitter.



AMERICAN PURPLE TOP STRAP LEAF

In the middle and western states sow for fall and main crop from the middle of June to the first of August and in the manner given for spring sowing. In the field, turnips are often sown broadcast, though in most cases better results are obtained by drill culture; good results from broadcast sowing are often obtained on new and burned over land where the weeds are not likely to be troublesome.

Especially where not properly sown and cultivated, turnips are sometimes affected by the root maggot and the flea beetle. Among the remedies employed for the maggot are the application of a carbolic acid emulsion, or of sand and kerosene, or of bisulphide of carbon to the soil about the roots when small. A preventive that is considered much better is a rotation of crops. The flea beetle may be checked by spraying the plants with Bordeaux mixture, or a nicotine preparation, such as black leaf 40, or by sprinkling with Paris Green diluted with land plaster in the ratio by bulk of one to fifty.

For winter keeping, store the turnips in a cool cellar and cover with sand or turf to keep them fresh. Another method is to put them in a pit dug in dry soil where there will be no danger of water standing and to cover with straw overlaid with earth sufficiently deep to keep out frost.

**EXTRA EARLY WHITE MILAN**—This variety is remarkably early. The tops are very small, strap-leaved, upright and compact, so that rows can be planted close together. The roots are clear white, very smooth, flat and are of best quality when only about two inches in diameter. The flesh is clear white, mild, sweet and tender. Very desirable for early use, especially for forcing.

**EARLY PURPLE TOP, STRAP LEAVED**—A very early strap leaved variety, very extensively used for the table. The leaves are few, entire, upright in growth. The roots are flat, of medium size, purple or dark red above ground, white below. The flesh is white, fine grained and tender. Roots when in best condition for table use are about two and one-half inches in diameter but can be grown much larger for stock feeding. This sort is also known as Early Red Top, Strap Leaved.

**WHITE EGG**—An early, oval or egg-shaped variety with smooth, clear white roots of medium size, which grow half out of the ground. The tops are small, with leaves distinctly cut. The flesh is clear white, firm, fine grained and sweet. The roots of this quick-growing garden sort when in best condition for use are usually about two inches in diameter and about three and one-half inches long.

**EXTRA EARLY PURPLE TOP MILAN**—Similar to Extra Early White Milan, except that the roots are a little flatter and an attractive purple-red on the upper portion. Well adapted for forcing. All in all, the Milan turnips leave nothing more to be desired in the way of an extra early garden turnip.

**POMERANIAN WHITE GLOBE**—One of the most productive kinds and in good, rich soil the roots will frequently grow to twelve pounds in weight. The roots are globe-shaped or slightly flattened; skin very white and smooth. This sort is used for stock feeding and is also good for table use if pulled when the roots are not more than four to five inches in diameter. Where the winters are mild the tops are used for greens.

**PURPLE TOP WHITE GLOBE**—This excellent table variety is globular in shape, of good size and very attractive appearance. The roots are large, purple or dark red above ground, white below. The flesh is white, fine grained and tender. The roots when in best condition for the table are about three inches in diameter, but can be grown much larger for stock feeding. This sort keeps well for so early a variety and is one of the best for market use. It is also known as Red Top White Globe.

**LONG WHITE COW HORN**—Roots are often twelve to fifteen inches long and three inches in diameter, round, carrot-like in form and slightly crooked; clear white in color except a shade of green at the top; quality good.

**PURPLE TOP YELLOW ABERDEEN**—A medium-sized round, late maturing, long keeping, yellow fleshed turnip. Roots yellow with purple top. Flesh pale yellow and of very firm texture, approaching the Ruta Baga in this regard, but tender and sweet. Since it requires a longer time to mature, the seed should be sown about two weeks earlier than most sorts. It is hardy, productive and valuable for stock feeding.

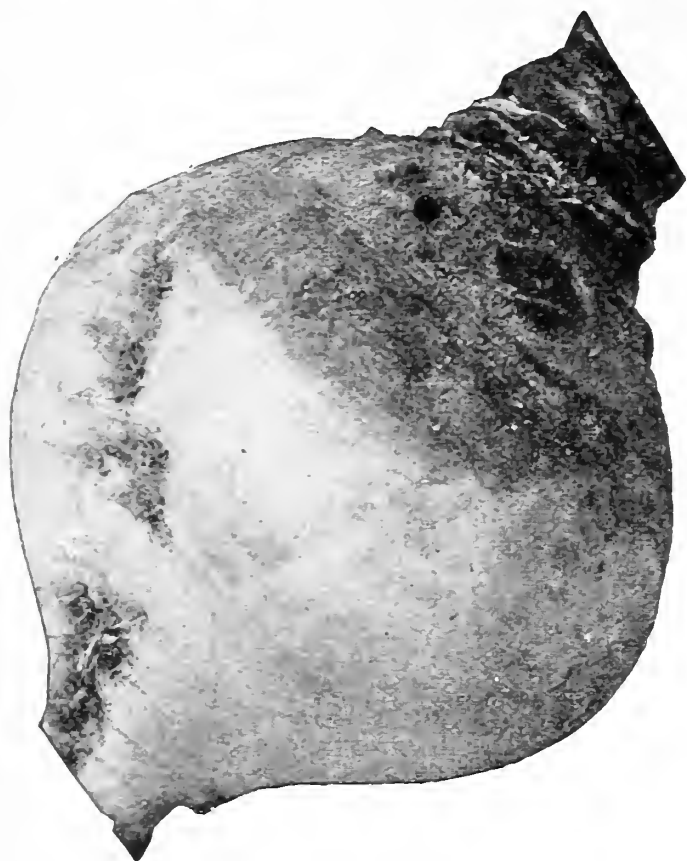
**YELLOW STONE**—The roots are of medium size, uniformly globular and perfect in shape. The skin is smooth and of attractive pale yellow color. The flesh is pale yellow, crisp, very tender and of exceptionally good quality. The roots are suitable for table use when three to four inches in diameter, but are more generally used for stock feeding.

**EARLY SNOWBALL**—Very early, of medium size, round as a ball and pure white skin and flesh.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
Extra Early White Milan.....	.10	.15	.25	.50	.85
Early Purple Top, Strap Leaved .....	.10	.15	.25	.45	.60
White Egg.....	.10	.15	.25	.50	.75
Extra Early Purple Top Milan..	.10	.15	.25	.50	.85
Pomeranian White Globe.....	.10	.15	.25	.45	.60
Purple Top White Globe.....	.10	.15	.25	.45	.60
Long White Cow Horn.....	.10	.15	.25	.45	.60
Purple Top Yellow Aberdeen...	.10	.15	.25	.45	.60
Yellow Stone.....	.10	.15	.25	.45	.65
Early Snowball.....	.10	.15	.25	.45	.65



## RUTA BAGA or SWEDE



EARLY PURPLE TOP STRAP LEAF

The uses and value of the Ruta Baga are much the same as those of the Turnip. The Ruta Baga as a class have firmer flesh than Turnips but require a longer season for maturing and usually are more esteemed for winter use, while Turnips are better adapted for the early market. Under most conditions of growth Ruta Baga roots are not so smooth on the surface nor as symmetrical in shape as Turnips, but yield heavily, are superior keepers and are the more prized for stock feeding.

Sow the seed from the middle of June to the middle of July, in ground previously enriched with well-rotted manure, in drills about two and one-half feet apart, covering about one-half inch deep. Thin the young plants eight to twelve inches apart in the row. When the roots are full grown and before hard freezing weather, pull them, cut off the tops and store in a root cellar or pit. Ruta Bagas are sometimes sown broadcast and left to take chances with the weeds, but the crop is seldom a success, though occasionally on new clearings free from weed seed, fair results are obtained.

**AMERICAN PURPLE TOP OR IMPROVED LONG ISLAND**—A strain of Purple Top Yellow Ruta Baga of American origin, very gray color. Being much lighter in color than the Japanese in our climate. The Whippoorwills are the best variety to grains are plump and light colored, the straw is strong and states. Broadcast about seventy-five pounds per acre.

**WHITE SWEDE, OR RUSSIAN**—Roots very large, nearly globe-shaped, with a small neck; color white with a green shade at the neck; flesh white, firm and sweet.

**WHITE SWEET GERMAN**—One of the sweetest and best of the white Ruta Bagas, with a bronze top; flesh white, firm and of excellent quality.

**YELLOW SWEDE**—Roots oblong, dull reddish color above ground, but yellow underneath. This sort is hardier than the common turnip and will keep solid until spring.

	Pkt.	Oz.	4 Ozs.	½ Lb.	Lb.
American Purple Top, or Improved Long Island.....	.10	.15	.25	.40	.75
White Swede, or Russian.....	.10	.15	.25	.40	.75
White Sweet German.....	.10	.15	.25	.40	.75
Yellow Swede.....	.10	.15	.25	.40	.75

## METCALF'S GARDEN SEEDS OF KNOWN ORIGIN

Here are four good reasons why you can safely depend upon Metcalf's Garden Seeds.

1. In every case we buy Seed from the territory that we know produces the very best hardy Seeds of that particular vegetable.
2. We contract with the firms that we are sure are the most careful about their stock seed and are the outstanding growers of the varieties desired.
3. So far as practicable, we select American-grown Seeds. In the case of a few vegetables, imported Seeds are best. For this reason, we import such Seeds as Cauliflower, Cabbage and Spinach direct from foreign growers of standing.
4. All Garden Seeds are tested for germination when they arrive at our warehouses.

In comparing our prices on Garden Seeds, please bear in mind that we *prepay parcel post* on all orders up to and including 10 lbs. On many items we can prepay the parcel post on larger orders. On others, such as Corn, Beans and Peas, this is impossible.

### Special Prices to Quantity Buyers

If you grow vegetables for market, or club with your neighbors so as to make up large orders, we will gladly quote you special prices. Select from this Catalog the kinds and amounts of Seeds you want and forward the list to us. We will fill in the latest prices and return the list to you at once.

We are as near to you as your mail box. Your order will receive immediate attention; shipment can usually be made the day your order is received.

## AROMATIC, MEDICINAL and POT HERBS

Most of the varieties of herbs thrive best on sandy soil and some are stronger and better flavored on that which is rather poor. In all cases the soil should be carefully prepared and well cultivated, as the young plants are for the most part delicate and easily choked out by weeds.

Sow as early as the ground can be made ready, in drills sixteen to eighteen inches apart, taking pains that the soil is fine and pressed firmly over the seed, or they may be planted as a second crop—the seeds sown in April and the plants set out in June. Most of them should be cut when in bloom, wilted in the sun and thoroughly dried in the shade.

**ANISE** (*Pimpinella anisum*)—An annual herb cultivated principally for its seeds which have a fragrant, agreeable smell and a pleasant taste; used medicinally for aromatic cordials, colic and nausea. The leaves are sometimes used for garnishing and flavoring. Plant of slender upright growth with deeply cut foliage; flowers small, yellowish white, borne in large loose umbels. Price—Pkg., 10c; Oz., 35c.

**BALM** (*Melissa Officinalis*)—A perennial herb, easily propagated by division of the root or from seed. The leaves have a fragrant odor similar to lemons and are used for making balm tea for use in fevers and a pleasant beverage called balm wine. Plant one to two feet high, hairy, loosely branched with ovate leaves; flowers white or pale yellow in loose axillary clusters. Price—Pkg., 10c; Oz., 35c.

**BASIL, SWEET** (*Ocimum basilicum*)—A hardy, aromatic annual. The seeds and stems have a strong flavor and are used in soups and sauces. Plant about eighteen inches high, branching, with ovate toothed leaves; flowers white or bluish white in leafy terminal racemes or spikes. Price—Pkg., 10c; Oz., 25c.

**BORAGE** (*Borago officinalis*)—A hardy annual used as a pot herb and for bee pasturage. The bruised leaves immersed in water give it an agreeable flavor and are sometimes used in salads to give a cucumber-like taste. Plant of coarse growth, hairy, with large oval leaves; flowers blue or purplish in racemes. Price—Pkg., 10c; Oz., 25c.

**CARAWAY** (*Carum carul*)—A well known herb, cultivated for its seeds, which are used in confectionery, cakes, etc. The leaves are sometimes used in soups, for flavoring liquors and for colic in children. Plant one and one-half to two feet high, with finely cut foliage and clusters of small white flowers. Plants never seed till the second year. Price—Pkg., 10c; Oz., 20c.

**CORIANDER** (*Coriandrum sativum*)—A hardy annual cultivated for its seed, which has an agreeable taste and is used in confectionery and to disguise the taste of medicine. Gather on a dry day, bruising the stems and leaves as little as possible, for when injured they have a disagreeable odor which they impart to the seed. Plant slender, two to two and one-half feet high, strong smelling, with smooth, finely cut foliage and small white flowers. Price—Pkg., 10c; Oz., 15c.

**DILL** (*Anethum graveolens*)—An annual of aromatic odor and warm pungent taste. Its seeds are used for seasoning. It possesses medicinal properties but its largest use is for making Dill pickles. Plant branching, two to three feet high; leaves very much cut into thread-like segments. Price—Pkg., 10c; Oz., 15c; ¼ Lb., 30c; Lb., 90c.

**FENNEL, SWEET** (*Foeniculum officinale*)—A hardy perennial. The seeds of this aromatic herb have a pleasant taste and are sometimes used in confectionery, also in various medicinal preparations. The young shoots are sometimes eaten raw and are used in salads, soups and fish sauces. Plant very branching, two to four feet high, with dense thread-like foliage; flowers light yellow in large loose umbels. Seed oval. Price—Pkg., 10c; Oz., 25c.

**HOREHOUND** (*Marrubium vulgare*)—A perennial herb with an aromatic odor and a bitter, pungent taste. It is a tonic and enters largely into the composition of cough syrups and lozenges. Laxative in large doses. Will thrive in any soil but is stronger if grown on light, poor land. Plant spreading, one to two feet high; leaves ovate, roughened, covered with whitish down; flowers small, white, borne at axils of leaves. Price—Pkg., 10c; Oz., 50c.

**HYSSOP** (*Hyssopus officinalis*)—A hardy perennial with an aromatic odor and a warm, pungent taste. It is a stimulant, expectorant and mild tonic. The flowering summits and leaves are the parts used. It does best on dry, sandy soil. Plant upright with narrow glossy dark green leaves; flowers small, borne in whorled spikes, blue, sometimes white or pink. Price—Pkg., 10c; Oz., 25c.

**LAVENDER** (*Lavendula spica*)—A hardy perennial, growing about two feet high. It is used for the distillation of lavender water or dried and used to perfume linen. It should be picked before it becomes dry and hard, and dried quickly. The seed is of rather slow and uncertain germination. Plant erect, with slender grayish green leaves and small violet-blue flowers. Price—Pkg., 10c; Oz., 30c; ¼ Lb., \$1 00.

**MARJORAM, SWEET** (*Origanum marporana*)—An aromatic herb for seasoning. The young tender tops and leaves are used green in summer to flavor broths, dressings, etc., and are also dried for winter use. Usually grown as an annual as it is not hardy enough to endure the winter of the northern states. Plant erect but branching, with small oval grayish green leaves and small purplish or whitish flowers. Price—Pkg., 10c; Oz., 50c.

**ROSEMARY** (*Rosmarinus officinalis*)—A hardy perennial, with fragrant odor and a warm bitter taste. The leaves are used for flavoring meats and soups and for medicinal drinks. Plant erect, branching with small slender leaves and small light blue flowers. The blossoms form the principal ingredient in the distillation of toilet waters. Plants do not reach a size suitable for use until the second season. Price—Pkg., 10c; ½ Oz., 35c.

**RUE** (*Ruta graveolens*)—A hardy perennial with a peculiar, unpleasant smell. The leaves are bitter and so acrid as to blister the skin. It is a stimulant and antispasmodic but must be used with great caution, as its use sometimes results in serious injury. It must not be suffered to run to seed and does best on poor soil. Plant one and one-half to two feet high, becoming woody at the base; leaves much divided; flowers yellow. Price—Pkg., 10c; Oz., 60c.

**SAFFRON** (*Carthamus tictorius*)—A hardy annual. Cultivated for its flowers, which are used principally for coloring, sometimes for flavoring, and to make the cosmetic powder called rouge. The flowers should be picked while in full bloom. Plant upright in growth, one to three feet high; leaves ovate, prickly; flower heads yellow, thistle-like. Price—Pkg., 10c; Oz., 25c.

**SAGE** (*Salvia officinalis*)—One of the most extensively used herbs for seasoning. It is also believed to possess medicinal properties. Hardy perennial, about fifteen to eighteen inches high. Plant very branching; flowers usually blue, sometimes pink or white; leaves grayish green, oval, wrinkled. Cut the leaves and tender shoots just as the plant is coming into flower and dry quickly in the shade. The plants will survive the winter and may be divided. If this is done they will give a second crop superior in quality. Price—Pkg., 10c; ½ Oz., 35c; Oz., 65c.

**SAVORY, SUMMER** (*Satureia hortensis*)—A hardy aromatic annual twelve to fifteen inches high, the dried stems, leaves and flowers of which are extensively used for seasoning, especially in dressings and soups. Plant erect, branching; leaves small, narrow; flowers small, purple, pink or white, borne in short spikes. Price—Pkg., 10c; Oz., 30c.

**THYME** (*Thymus vulgaris*)—An aromatic perennial herb, eight to ten inches high, used principally for seasoning. Plant very branching with wiry foliage and small lilac flowers. Sometimes the leaves are used to make a tea for the purpose of relieving nervous headache. Sow as early as the ground will permit. Price—Pkg., 10c; ½ Oz., 40c; Oz., 70c.

**WORMWOOD** (*Artemisia absinthium*)—A perennial plant of fragrant and spicy odor, but with intensely bitter taste. The leaves are used as a tonic, vermifuge and as a dressing for fresh bruises. Plant erect, two to three feet high, with much divided leaves and loose clusters of small light yellow flowers. It may be raised from seed, propagating by cuttings or dividing the roots. A dry, poor soil is best adapted to bring out the peculiar virtues of this plant. Price—Pkg., 10c; Oz., 30c.

**When making out your order for Flower Seeds glance over the following items. They are all necessary for your garden.**

**RED EARTHEN FLOWER POTS AND SAUCERS**—2 in. up to 12 in. Good Price by the hundred.

**NORCROSS WEEDERS**—Price \$1.00.

**ASPARAGUS KNIVES**—Price 40c.

**GARDEN TROWELS**—Price, 15c, 20c, 30c.

**HEAVY GALVANIZED SPRINKLER POTS**—All sizes. 4 Qt., 65c; 6 Qt., 75c; 8 Qt., 90c; 10 Qt., \$1.00; 12 Qt., \$1.20; 16 Qt., \$1.40.

Spading Forks, Garden Hoes, Garden Rakes, Grass Shears, Hedge Shears, Lawn Edgers, Pruning Shears, Lawn Mowers, Lawn Rollers, Planet Jr. Wheel Hoes.



## FLOWER SEEDS

### ABUTILON

**ROYAL PRIZE** (Flowering Maple or Chinese Bell Flower)—3 to 4 feet. As indispensable for the window or greenhouse as the Petunia is for the flower garden. Grows rapidly from seed, and is soon in bloom. Leaves very ornamental and often beautifully variegated. Lovely bell-shaped flowers, borne the year round and in all colors. Price—Pkt., 25c.

### ACROCLINIUM

**DOUBLE MIXED**—2 feet. A pretty Everlasting, bearing graceful, daisy-like flowers, pretty bright rose with yellow center, which, when cut in the bud state can be dried and used for winter bouquets. Price—Pkt., 10c.

### ADONIS (Pheasant's Eye)

**FLOS ADONIS**—Showy, hardy, annual, of easy culture, fine cut foliage, blooms a long time. Large star-shaped yellow flowers. Price—Pkt., 10c.

### AGERATUM

One of the best summer blooming plants grown from seed. They are rapid growers, early and constant bloomers. During the hot dry summer months their bright flowers are produced in the greatest profusion. Set the dwarf sorts 10 inches apart and they soon make a mass of charming color.

**IMPERIAL DWARF BLUE**—6 in. A charming variety of fine compact growth, covered with heads of feathery flowers of a deep lavender color. Price—Pkt., 15c.

**LASSEAU XII**—Dwarf compact growing plant, suitable for edging. Flowers pale rose. Price—Pkt., 10c.

### AGROSTEMMA

**CORONARIA VARIETIES MIXED**—Attractive free-flowering, producing bright colored flowers on long, slender stems like a single pink; blooms the first season; fine for cutting; 1 to 2 feet. June-September. Price—Pkt., 10c.

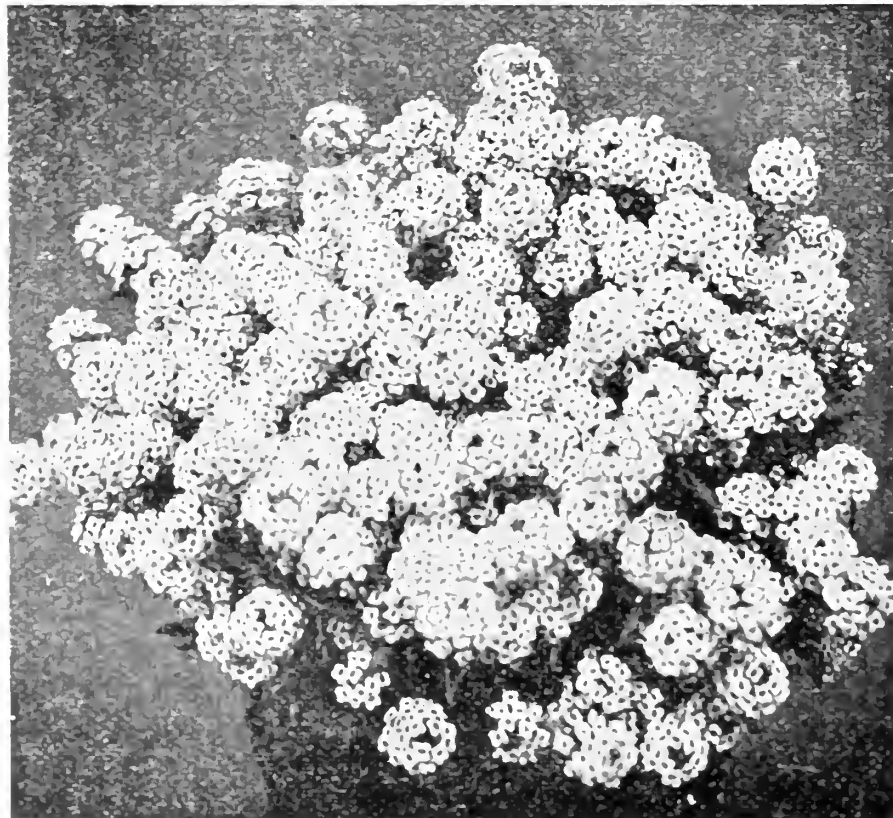
### AMMOBIUM

**ALATUM GRANDIFLORUM**—2½ feet. This pretty white Everlasting should be in every garden. Grows also in sandy soil. Price—Pkt., 10c.

### ALYSSUM

**BENTHANI MARITIMUM** (Sweet Alyssum)—This is one of the finest annuals we have for edging and is beloved by many on account of its modest blossoms. Flowers white and honey scented. It begins to bloom early in the season, and continues until frost. Mix the seed with sand before sowing to prevent sowing too thickly. Price—Pkt., 5c.

**LITTLE GEM** (Snow-white Carpet Plant)—The plants, which are only a few inches high, grow so dense and are so completely covered with snow-white blossoms they create the impression of a beautiful snow-white carpet. Our strain of this is unquestionably the best in the world, one plant like another, absolutely perfect. Price—Pkt., 10c.



ALYSSUM



AGERATUM

### AMARANTHUS

Brilliantly foliaged annuals, some of the varieties bearing curious racemes of flowers. All are useful in borders of tall plants, among shrubs, or for the centers of large beds. Do not grow them too closely together, but give them sufficient room to develop their full beauty. When flowered in small pots under glass they are very charming.

**CAUDATUS** (Love Lies Bleeding)—Blood red, drooping foliage, 3 feet. Price—Pkt., 10c.

**TRICOLOR** (Joseph's Coat)—2½ feet. The inner foliage is of blackest bronze, tipped with green, while the outer foliage is bright scarlet and gold. Price—Pkt., 10c.

**SUPERBUS COLEUS, LEAVED.** Price—Pkt., 10c.

### ANCHUSA

**CAPENSIS** (Summer Forget-Me-Not)—2 feet. A hardy annual of more than ordinary beauty. It grows about two feet high, branching freely and bearing a profusion of the most lovely flowers similar in all respects to the Forget-Me-Not, though the blossoms are much larger and of finer color. It is always taken for a beautiful large flowering Forget-Me-Not, and for bouquets and cut flowers it is indeed superior to it. It blooms early and continues all summer. Price—Pkt., 10c.

### ASPARAGUS

**PLUMOSUS NANUS** (Lace Fern)—3 feet. The bright green sprays surpass the Maidenhair Fern in grace and delicacy of texture. The hard seeds needs soaking and bottom heat to sprout. Price—Pkt., 10 seeds, 15c.

### ANEMONE

**CORONARIA** (Wind Flower)—Among the earliest of spring flowers. They are about two inches across, with blue stamens, resemble the single poppy in shape and come in several shades of color.

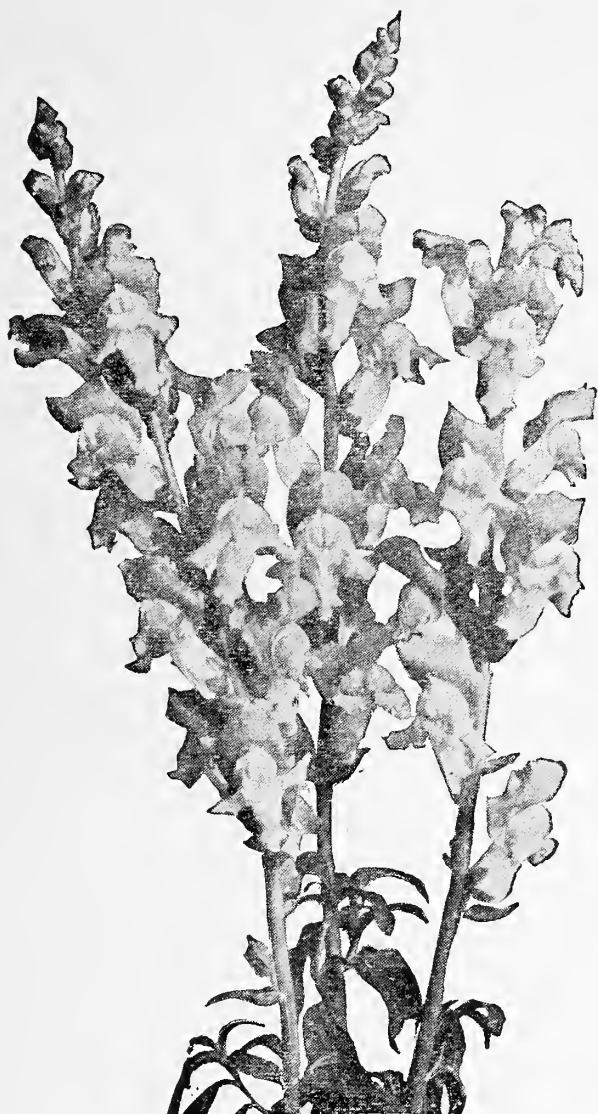
Sow from April to August. Succeeds well in rich, light loam, in a sunny situation. Plants taken up in the fall will bloom well in pots in the winter. Hardy perennial; outdoors about six inches high. Single Mixed. Price—Pkt., 10c.

### ANTIRRHINUM (Snapdragon)

For gorgeous coloring few flowers can match Snapdragons. The flowers of this new strain are of very large size, are very fragrant and are produced on immense long spikes, which render them extremely well adapted for cut-flowers. They are easily raised from seed in any rich sunny bed. If intended for winter flowering inside, cut back in September.

**TALL GIANT FLOWERING**—24 to 36 inches. White, yellow and ruby rose. Price—Pkt., 10c.

## FLOWER SEEDS—Continued



ANTIRRHINUM (SNAPDRAGON)

**SPECIAL MIXTURE OF SNAPDRAGONS**—Includes many charming varieties and a packet will furnish you with a never-ending color combination of long-stemmed cut flowers suitable for home, church or hospital decoration. **Price—Pkt., 10c.**

**DWARF**—Grow about 8 inches in height. Good for edgings and pot plants. Pink. **Price—Pkt., 10c.**

**AQUILEGIA (Columbine)**

Very desirable, easily grown, old-fashioned perennials for borders, forming large, permanent clumps. Blooms profusely early in the season and remains in bloom for a considerable period.

Sow the seed, which is of rather slow germination, in open ground early in spring in any rich, well drained garden soil. In permanent beds plants should have at least one foot each way. Keep clear of weeds and give each year a dressing of well rotted manure. Seed may also be sown outdoors in fall. Hardy herbaceous perennials; two to three feet high. **Price—Pkt., 10c.**

**ARCTOTIS GRANDIS (African Daisy)**

A remarkably handsome annual from Southwest Africa. It forms much branched bushes 2 to 3 feet high; its flowers are large and showy, being pure white on the upper surface, the reverse of petals pale lilac-blue. It is easily grown from seed, and may be started in hotbed, in the house or in the open ground, the seed germinating in about five days, and the plants may be expected to come into bloom early in July and continue until quite hard frost. It delights in a sunny situation. As a cut flower it is especially valuable, the blooms lasting a week or more in water. **Price—Pkt., 10c.**

**ARABIS (Rock Cress)**

Charming dwarf spring-flowering plants of easy cultivation; valuable for beds, edgings.

**ALPINA**—6 in. Large masses of double pure white flowers. **Price—Pkt., 10c.**

**ARISTOLOCHIA**

**SIPHO (DUTCHMAN'S PIPE)**. 30 ft. Very large, showy foliage. One of the best climbing plants grown. Flowers of various colors. Requires protection in winter. **Pkt., 10c.**

**ASTER**

During the late summer and early fall the garden is usually a riot of reds and yellows, so the asters in their dainty and distinct colors as well as their many attractive forms are a pleasing addition. The long stems make them desirable for cut flowers and the blooms last long in water. It should be remembered, however, in regard to Asters, that good culture is essential in order to obtain an abundance of fine flowers.

**QUEEN OF THE MARKET**—The best early aster, usually in full bloom two weeks before most other sorts begin to blossom. Of graceful spreading habit. White, flesh, pink, crimson, scarlet, light blue, lavender, purple, dark blue. **Price—Pkt., 10c.**

**GIANT COMET**—This giant class is an improvement on the old and inferior Comet class, not only in bearing much larger flowers, but the petals are longer and broader. Yellow, peach-blossom and mixed. **Price—Pkt., 10c.**

**GIANT BRANCHING**—Beautiful for cut-flowers. The branching habit is accompanied with great vigor of growth and profusion of bloom. Lavender, pink or salmon rose. **Price—Pkt., 10c.**



GIANT OSTRICH FEATHER ASTER

**FINEST MIXED**—A mixture of very fine strains and colors. The bed can be made more attractive by pulling up the early plants as soon as they are out of bloom. **Price—Pkt., 10c.**

**GIANT CREGO**—The flowers measure four to five inches in diameter, and are borne on stems twelve inches or more in length. Their lasting qualities when cut are unsurpassed. Mixed, all colors. **Price—Pkt., 10c.**

**DWARF CHRYSANTHEMUM FLOWERED**—All colors, mixed. Of very compact growth; 3½-inch flowers. Excellent for formal bedding. **Price—Pkt., 10c.**



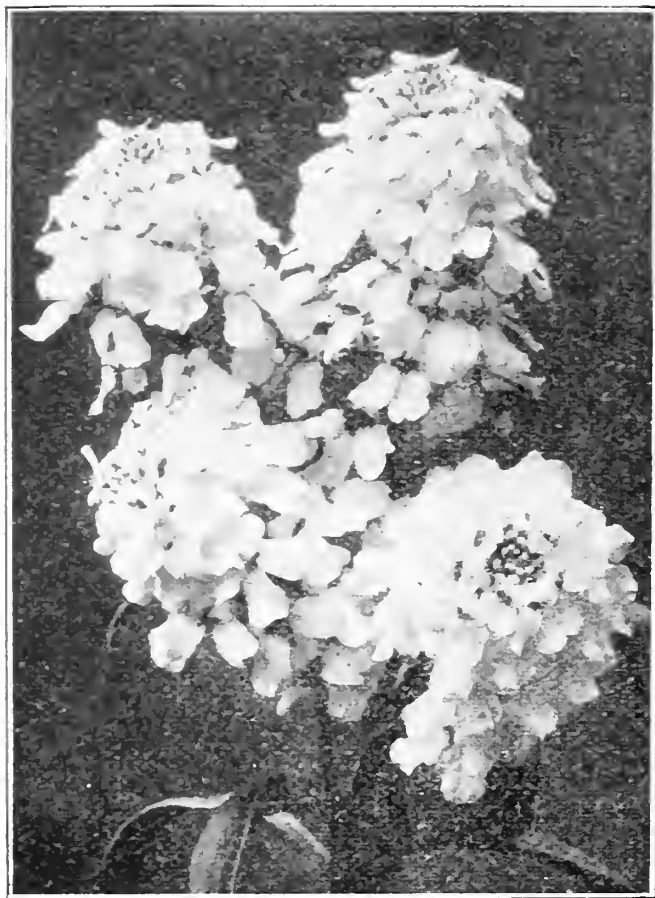
BALSAM



## FLOWER SEEDS—Continued

### DOUBLE BALSAM

One and one-half to two feet. An old and favorite garden flower, producing its gorgeous masses of beautiful brilliant colored double flowers in the greatest profusion. Balsams like the hot sun, rich soil and plenty of water. For perfect development the plants should be set from twelve to eighteen inches apart. Transplanting two or three times has the tendency to dwarf the plants into better shape and to make the flowers more like double mixed. Price—Pkt., 10c.



CANDYTUFT

### BALLOON VINE (Love in a Puff)

A clean, free-growing vine reaching ten to fifteen feet, bearing delicate clusters of bloom and numbers of large, round, inflated seed buds resembling miniature balloons. The effect is most odd and curious. It is in every way a very attractive vine. Price—Pkt., 5c.

### BAPTISIA (False Indigo)

Two feet. Deep blue flowers in pretty racemes during June and July. Pkt., 10c.

### BEGONIA SEMPERFLORENS

**EVER-BLOOMING BEDDING VARIETIES**—A continuous-flowering section of begonias of the greatest value for bedding; the flowers, although small, are of brilliant colors and borne in great profusion from summer to autumn. Seedlings of spring bloom in summer, while seedlings of summer make valuable decorative plants for the greenhouse during winter. Price—Pkt., 25c.

**SEMPERFLORENS ATRO-PURPUREA VERNON**—Orange carmine flowers, deep red. Pkt., 10c.

### BELLIS PERENNIS (English Daisy)

Six to eight inches. A low growing spring flowering plant. Loves a shady place and will reward the gardener with a mass of blossoms for succeeding years if left undisturbed. Price—Pkt., 10c.

### BRACHYCOME (Swan River Daisy)

A free-flowering, dwarf-growing annual; covered during the greater part of the summer with a profusion of pretty blue or white flowers, suitable for edgings, small beds or pot culture. Price—Pkt., 10c.

### CALENDULA (Pot Marigold)

One of the best and showiest free-flowering hardy annuals, growing in any good garden soil, producing a fine effect in beds or mixed borders, particularly bright in late fall, continuing in bloom from early summer until killed by frost; valuable also for pot culture, blooming freely in winter and early spring.

**METEOR**—Large double yellow, striped with orange. Pkt., 10c.

**LEMON QUEEN**—Light yellow. Price—Pkt., 10c.

**MIXED.** Price—Pkt., 10c.

### CALLIOPSIS (Tickseed)

Six inches to two feet. Very graceful border plants, supplying throughout summer an abundance of elegant showy flowers which are greatly prized for bouquets and vases. They will thrive any where, even in city gardens, where their bright colors are highly appreciated.

**CROWN OF GOLD (Coronata Maxima)**—Splendid cut flower. Pure golden yellow, two inches across, on long wiry stems. Price—Pkt., 10c.

### CANDYTUFT

These Candytufts are of fine habit and profuse bloomers. They soon flower from seed and remain long in beauty. For massing in flower beds and borders and for edgings they are admirably adapted, while for cutting the flowers are greatly prized.

**GIANT HYACINTH-FLOWERED WHITE**—One foot. A grand border plant, bearing very large, bold spikes of snowy white flowers, habit sturdy and compact. This is an especially select stock. Price—Pkt., 10c.

**EMPRESS**—Pure white, splendid cut flower. Price—Pkt., 5c.

**DWARF HYBRIDS MIXED**—Plants of fine, compact growth, covered with large flowers ranging in color from rose, salmon, coral pink and delicate blush to lilac and purple crimson. Valuable for borders and cutting. Price—Pkt., 10c.

### CANARY BIRD VINE

Fifteen to 20 feet. A dainty vine with beautiful cut leaves and pretty, delicate flowers of a clear, canary-yellow. From the color of its blossoms and also from a fancied resemblance of their shape to a bird with wings expanded the plant obtained its common name. Does well in the shade. Price—Pkt., 10c.

### CANNA

Two and one-half to eight feet. Enormous brilliant clusters of bloom borne on spikes above broad leaves of green or bronze, in tropical effect. These are usually planted from roots or started plants, but they can be successfully grown from seed if planted early. The seed should be pierced in one spot with a file and soaked in lukewarm water for twenty-four hours before sowing. A splendid lot of plants may be produced at a much reduced cost.

**GIANT FLOWERED, MIXED**—Price—Pkt., 10c.

**CROZY'S DARK LEAVED HYBRID**—Price—Pkt., 10c.

### CARNATION

The Carnation has long been prized as a hardy border flower, and it certainly deserves all the praise lavished upon it. Being hardy, free-flowering, and easily grown either in flower-beds, borders, or pots, it is one of the most valuable and beautiful of our summer flowers and a favorite with everyone. Plants raised from seed bloom more profusely than propagated plants, and are therefore to be preferred.



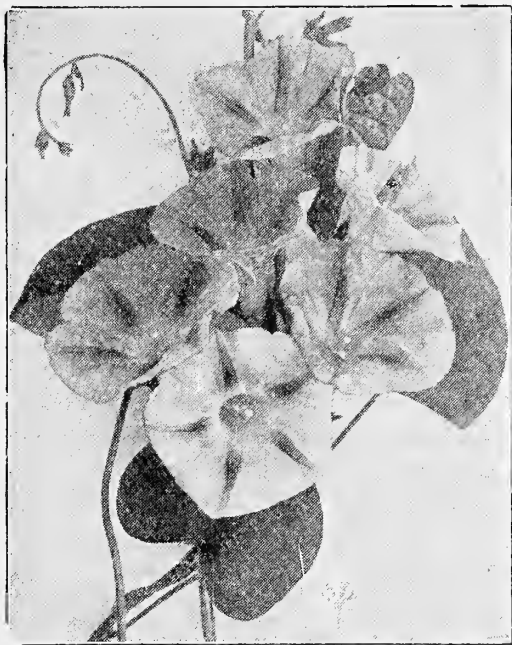
CARNATION

**GIANT MARGARET MIXED**—Flowers of very large size, measuring 3 in. or more in diameter; colors include all the shades of white, pink, crimson and striped. Upright growth requiring hardly any support. Price—Pkt., 100 seeds, 15c.

**GIANT FLOWERED MALMAISON, MIXED.** Price—Pkt., 15c.

**VIENNA DWARF, EXTRA CHOICE MIXED.** Price—Pkt., 15c.

## FLOWER SEEDS—Continued



MORNING GLORY

## CELOSIA (Coxcomb)

**CRISTATA or CRESTED DWARF SORTS**—Very popular annuals of easy culture, producing large, ornamental, comb-like heads like ruffled chenille. Prized for pots or summer flower beds.

**EMPRESS**—Blood-red combs and brown foliage. Price—Pkt., 10c.

**PLUMOSA or PLUMED VARIETIES**—2½ to 3 feet. These stately plants are considered among the most ornamental, and should not be omitted in any garden. They generally form pyramidal bushes branching out in candelabra shape, and the numerous massive plumes which resemble ostrich feathers, wave gracefully above the foliage. Price—Mixed Pkt., 10c.

## CENTAUREA CYANUS (Bachelor's Button)

Known as Ragged Sailor or Cornflower. It is not a pretentious plant but will always charm by its simple beauty. Re-seeds itself and may be used for naturalizing purposes. Mixed. Price—Pkt., 10c.

## CHRYSANTHEMUM

These outdoor "summer Chrysanthemums" are showy and effective for bedding or borders in the garden and desirable for cut flowers. Plants become more bushy and shapely if pinched back in early growth and the practice of disbudding will result in much larger flowers. These annuals are not the winter flowering sorts sold by florists and which are propagated only by division of roots. Price—Mixed Pkt., 10c.

## CLARKIA

Clarkias are popular summer annuals, all perfectly hardy, and can be grown with the utmost ease in ordinary soil. They flower profusely, and are exceedingly bright and attractive, especially in large masses. Price—Pkt., 10c.

## CLEMATIS

Well known beautiful climbers, much admired for their gracefulness and attractive flowers. They are splendid for covering arbors, verandas, etc.

The seed germinates slowly. For best results sow indoors in fall or very early in spring. Press the soil firmly over the seed and keep moist and warm. When suitable transplant to place one foot apart, or seed may be sown outdoors early in spring. Perennial but some protection in northern latitudes through winter is advised. Water the roots freely during dry weather to insure profuse blooming.

**FLAMMULA**—A slender but vigorous climber, from ten to fifteen feet high, with clusters of small, white, fragrant flowers in August and September. Known as Sweet Virgin's Bower. Price—Pkt., 10c.

**MIXED**—Extra choice, large flowering varieties, with beautiful clusters of purple and white flowers. Price—Pkt., 10c.

## COBAEA

**SCANDEN'S CATHEDRAL BELLS**—30 feet. One of the hand-somest and rapid growing climbers. The flowers are bell-shaped and open a clear green but turn a beautiful purplish lilac. Seed should be sown edgewise. A very vigorous and prolific bloomer. Price—Pkt., 10c.

## COLEUS (Annual)

Choice hybrids. Produces fine colored very attractive and novel foliage plants for house or garden culture. Sow indoors in March or April. Price—Pkt., 10c.

## CONVOLVULUS (Morning Glory)

**MAJOR (Tall Varieties)**—The Morning Glory is too well known to need a description, and one seldom finds a more satisfactory vine. The amateur gardener can be sure of a fresh supply of bright colored, delicately tinted flowers. Price—Pkt., 10c.

**MINOR (Dwarf or Bush Varieties)**—Are very showy and beautiful hardy annual for flower beds and borders, also rockwork; they bloom for a long period and delight in sun. Price—Pkt., 10c.

## COSMOS

Four to six feet. This beautiful annual is one of the most showy and useful of our garden plants. Plants are very bushy and compact. Flowers borne on long delicate stems and are similar to single Dahlias. Foliage very finely cut.

**EARLY FLOWERING MAMMOTH**—These are the only kind we would recommend planting north of the latitude of Middle Illinois, as the late, or Giant flowered varieties are nearly always caught by early frost. We have dropped the ordinary Early Flowering varieties which produce small flowers and now offer only these Mammoth Early Flowering sorts.

**WHITE, PINK, RED STAR AND LILAC**—Price—Pkt., 10c.

**MIXED**—Price—Pkt., 10c.

## CYPRESS VINE

Ten feet. For training upon a light ornamental trellis the Cypress Vine cannot be excelled. It has a profusion of scarlet or white star-shaped blossoms, and its finely cut foliage is particularly adapted to ornamental work. White, scarlet, mixed. Price—Pkt., 5c.

**IVY-LEAVED SCARLET**—A rapid growing variety with deeply lobed, ivy-like leaves, and small scarlet flowers. Price—Pkt., 10c.

## DAHLIA

But few people know Dahlias can be raised from seed and will bloom the first year. The seeds germinate easily and from the very first are strong and sturdy little plants. Plant them in a shallow box or pan early in March or April, transplant them carefully as their growth demands, and keep the soil moderately moist. When all danger from frost is over, plant them in the bed or border in the garden, and from then on they will prove no more trouble than if the tubers had been used instead of seed.



DAHLIA

**SINGLE GIANT PERFECTION MIXED**—Price—Pkt., 10c.

**DOUBLE FINE MIXED**—Price—Pkt., 10c.



## FLOWER SEEDS—Continued

### DATURA (Angel's Trumpet)

Three feet. Handsome plants for subtropical bedding in summer, having large trumpet-shaped fragrant flowers. They should be given a light soil and a sunny sheltered position. Make grand pot plants for the greenhouse.

DOUBLE FINE MIXED—Price—Pkt., 5c.

### DELPHINIUM (Annual Larkspur)

These handsome Larkspurs are very effective in borders and planted amongst shrubs. The graceful spikes of bloom are much valued for vases. They continue long in bloom. The Emperor, hyacinth-flowered and branching varieties bloom a little later than the Stock-flowered. Sow seed in the open border either in early spring or late fall so germination may take place very early in the spring.

WHITE, SKY BLUE AND DARK BLUE—Price—Pkt., 10c.

SPECIAL MIXTURE (Annual Larkspur)—A charming mixture containing all the bright and delicate shades, makes wonderful cut flower material and should be planted generously. Price—Pkt., 10c.

EMPEROR MIXED—Produces an abundance of long, slender spikes in the most delicate colors. Price—Pkt., 5c.

### DIANTHUS (Garden Pinks)

A popular annual variety known to nearly all. The flowers are distinguished for their brilliant, contrasting variety of colors appearing in each flower. The stripes and spots make the clusters stand out distinctly.



DIANTHUS (GARDEN PINK)

LACINATUS MIXED—Single fringed flowers. Price—Pkt., 5c.

CHINENSIS FL. PL. (China or Indian Pink). Mixed colors. Price—Pkt., 10c.

HEDDEWIGI FL. PL. (Japan Pink). Double mixed. Price—Pkt., 10c.

DOUBLE (Special Mixture of Double Pinks)—Selection of the best double pinks in cultivation. Flowers ranging in color through all the brightest and most brilliant shades. Price—Pkt., 10c.

### DIGITALIS (Foxglove)

These produce spires of blossoms three to five feet high. Stately old garden favorites for garden, shrubbery borders and naturalizing in suitable places. Price—Pkt., 25c.

### EUPHORBIA

Strong growing annuals, for beds of tall growing plants or mixed borders; the flowers are inconspicuous; the foliage, however, is exceedingly ornamental.

MEXICAN FIRE PLANT—Annual poinsettia, resembling in habit and color the beautiful hothouse poinsettia. About mid-summer the center top leaves of each branch turn a vivid orange scarlet. Price—Pkt., 10c.

VARIEGATA (Snow on the Mountain or Mountain Spudge)—2 feet. Remarkably distinct plant; very showy with its foliage edged white and green. Price—Pkt., 10c.

### ESCHOLTZIA (California Poppy)

One foot. The State flower of California. A bright free-flowering plant of low spreading growth with finely cut silvery foliage. The poppy-like flowers in pure shades of yellow, orange and crimson are produced from early spring until frost. Sow the seed where the plants are to remain. Mixed, all colors. Price—Pkt., 10c.

### GAILLARDIA (Blanket Flower)

One and one-half feet. They will produce from early spring until late fall a continuous profusion of brilliantly colored flowers, red and yellow predominating. Of easy culture, sow where they are to remain.

LORENZIANA DOUBLE PERFECTION MIXED—Large handsome heads of double quilled flowers in rich shades of red and yellow. Price—Pkt., 5c.

### GLOXINIA

METCALF'S INTERNATIONAL MIXTURE—12 in. Magnificent house blooming plants, with handsome bell-shaped flowers in the diversity of the richest colors. Price—Pkt., 25c.

### GODETIA

One and one-half feet. An attractive hardy annual, deserving more extensive cultivation. The plants bloom profusely and bear showy flowers of satiny texture in many rich and varied colors. They do best in a rather poor soil. Price—Pkt., 10c.

### GOMPHRENA (Globe Amaranth)

Clover-shaped flowers. Cut when in full bloom and dried they retain their colors. Two feet. Mixed. Price—Pkt., 10c.

### GOURDS

Twenty feet. These are desirable in many places where an immense amount of vine is wanted quickly. Most sorts are good for 20 to 30 feet in a season and the blooms of some are quite striking and handsome. With many sorts the fruit is unique and ornamental and often useful. The small fancy gourds are excellent toys for children, while the larger gourds may be used as dippers, sugar troughs and bowls. Price—Pkt., 5c.

### GRASSES

ORNAMENTAL MIXED—2 to 5 feet. These are most useful for winter bouquets when combined with Everlasting flowers. They are easily grown in any soil. Price—Pkt., 10c.

### GYPSOPHILA

Two feet. Graceful plants of light, fairy-like growth. Much in demand for cutting and combining with other flowers for bouquets and vases.

ELEGANS GRANDIFLORA ALBA (Angel's Breath)—This is an improved, large-flowering, pure white, of free, easy growth. Several sowings should be made during the season to keep up a supply. Price—Pkt., 5c.

### HELICHRYSUM (Strawflower)

Two to three feet. Helichrysums are an ornament to the garden when growing, and are everywhere prized for the winter decoration of vases, and for durable bouquets. Flowers intended for drying should be gathered when partially unfolded and suspended with their heads downward in a cool place.

COLORS—Rose queen, salmon queen, crimson, coppery red, fire ball and golden ball. Price—Pkt., 10c.

MIXED—Price—Pkt., 10c.

### HELIOTROPE

Two feet. Heliotrope is a universal favorite on account of its delightful fragrance and duration of bloom, flowering equally well as bedding plants in summer, or as pot plants in the house during the winter. Seed sown in the spring makes fine plants for bedding out, and are as easily grown as Verbenas.

FINE MIXED—Price—Pkt., 10c.

### HUMULUS JAPONICUS (Japanese Hop)

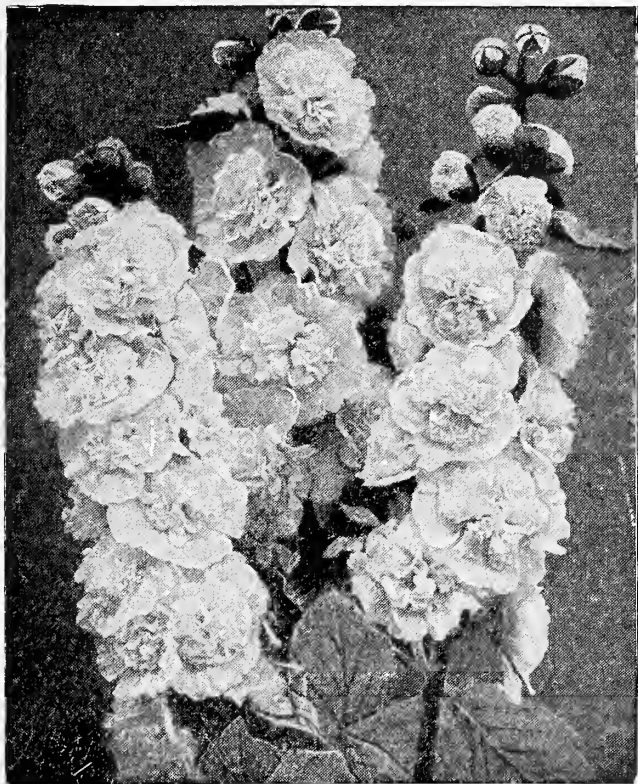
Rapid summer climber; the foliage is luxuriant, making a dense covering. It is one of the best plants for covering verandas, trellises, etc. Heat, drought and insects do not trouble it.

VARIEGATED LEAVED—The large, handsome leaves are beautifully variegated, white, green and yellow. Price—Pkt., 10c.

## FLOWER SEEDS—Continued

## HOLLYHOCK

One of the best hardy garden flowers. Makes a charming hedge or background. Hollyhock rust is the bane of every person who tries to grow hollyhocks. There is no remedy, but much can be done to prevent it and reduce the damage by spraying the plants with Bordeaux mixture. 6-8 feet. August to September.



HOLLYHOCK

CHATER'S DOUBLE PINK—Price—Pkt., 10c.

DOUBLE EVERBLOOMING ANNUAL MIXED—Price—Pkt., 10c.

HYACINTH BEAN (*Dolichos Lablab*)

A fine climber with clusters of purple or white flowers followed by ornamental seed pods. Tender annual; from ten to fifteen feet high. Price—Pkt., 5c.

ICE PLANT (*Mesembryanthemum crystallinum*)

A curious plant for hanging baskets, rockwork, vases and edgings; leaves and stems succulent, appearing as though covered with ice crystals. Tender annual trailer; six inches high. Price—Pkt., 5c.

## IPOMOEA

Beautiful annual outdoor climber of luxuriant growth for covering verandas and arbors, or for screening unsightly objects. Sow preferably in heat and transplant to open border; or sow in open border after the ground becomes warm. Soak seed in lukewarm water before planting. Tender annual; ten to fifteen feet high. Price—Pkt., 5c.

IMPERIALIS JAPANESE (Japanese Morning Glory)—Largest and handsomest of all Morning Glories. Price—Pkt., 5c.

JOB'S TEARS (*Coix Lachryma*)

Curious ornamental grass with broad, corn-like leaves and lustrous slate-colored seeds used for beads. Valuable for winter bouquets with everlasting flowers. Plant outdoors early in spring in hills three feet apart, four or five seeds in a hill, and cover half an inch deep. Hardy annual; three feet high. Price—Pkt., 10c.

## KOCHIA TRICHOPHYLLA (Summer Cypress)

A quick growing foliage or hedge, very symmetrical and attractive in summer and fall. The foliage is as fine as moss and of clean, bright green color. Early in the fall innumerable little flowers appear and the bush takes on a deep red tinge. Sow outdoors early in spring, covering one-fourth inch deep. Make the rows two feet apart and thin eighteen inches apart. For earlier blooming start indoors and transplant to open ground. Hardy annual; about two and one-half feet high. Price—Pkt., 10c.

## LINUM

GRANDIFLORUM RUBRUM (Scarlet Flax)—An attractive free-flowering bedding plant with slender foliage and bearing on delicate stems clusters of glossy bright red single flowers, saucer-shaped, with black center. If sown in hotbed and transplanted into good, rich soil, one foot apart, the period of flowering will be much advanced but the seed can be sown in the open ground after the weather is warm. Hardy annual; about one and one-half feet high. Price—Pkt., 5c.

## LOBELIA

The four dwarf (*Erinus*) sorts are charming plants, well adapted for bedding, pots or rockeries. They make a neat edging for beds of white flowers and are very effective in masses, being covered with flowers a long time. The flowers are usually blue with lighter center and are borne in neat clusters, each irregularly lobed flower being about five-eighths inch across.

Seed may be sown outdoors after danger of frost is over; or start the plants in pots in greenhouse or hotbed, early in spring and transplant in May to place outdoors. Half hardy annual; usually about six inches high.

TRUE BLUE—A very fine, erect and compact variety with clear intensely blue flowers. Price—Pkt., 10c.

CRYSTAL PALACE (*Speciosa*)—An exceptionally graceful sort having bright deep blue flowers; very dark green foliage. Price—Pkt., 10c.

GRACILIS—The flowers are bright blue with small white centers, fine for baskets and vases, trailing gracefully and blooming profusely. The plants are slender, six inches high. Price—Pkt., 10c.

## LUPINUS

Annual Sorts. Free-flowering, easily grown annuals, with long, graceful spikes of rich and various colored pea-shaped flowers; valuable for mixed borders, beds and for cutting; prefers a little shade. Annual mixed. All colors. Price—Pkt., 10c.

## MALOPE (Mallow-Wort)

Two feet. Showy plants for large mixed flower and shrubby borders. The flowers are large and handsome.

ALBA—Large white flowers. Price—Pkt., 10c.

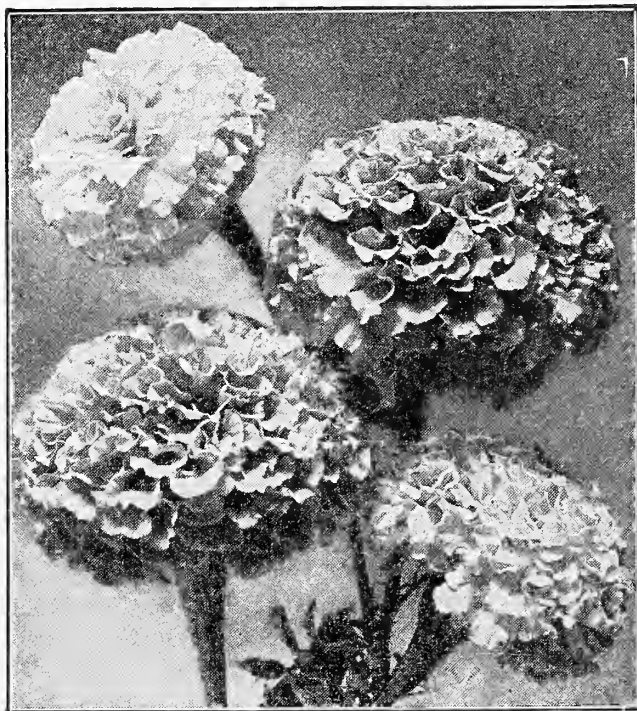
ROSEA—Flowers large, blush, shaded pink toward center. Price—Pkt., 10c.

## MATRICARIA

CAPENSIS (Feverfew)—Three feet. Neat, small, double white flowers, well adapted for bedding and cutting. They are perennials in mild climate, but in our latitude are treated best as annuals. Price—Pkt., 10c.

MARIGOLD (*Tagetes*)

In late summer, when many bedding plants are past their prime, Marigolds afford a wealth of color that is simply invaluable. The African varieties produce large self-colored blossoms on tall plants; the French are smaller, but the colors and markings are very interesting, some of the varieties being elegantly striped and spotted. The Single French and the Dwarf Single French Marigolds hold the chief place in the class.



MARIGOLD

LEMON QUEEN—Price—Pkt., 10c.

PRINCE OF ORANGE—Price—Pkt., 10c.

TALL AFRICAN MIXED—Price—Pkt., 10c.

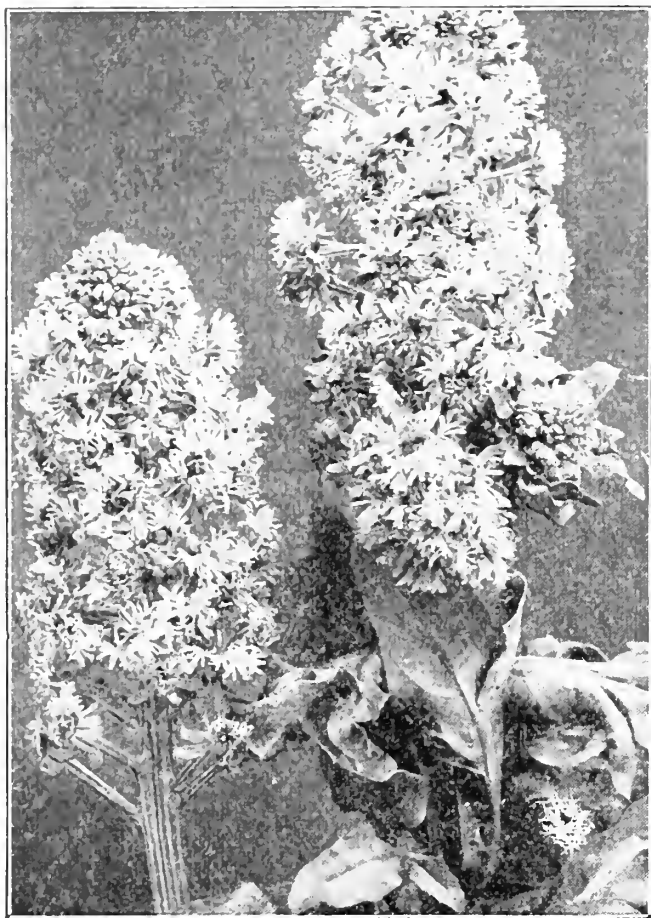
SPECIAL MIXTURE TALL MARIGOLDS—This mixture includes several varieties which we purchased especially for this mixture. A packet will give you flowers of enormous size in a wonderful assortment of color, in shades of yellow, cream, orange, rusty brown, old gold, etc. Price—Pkt., 10c.



## FLOWER SEEDS—Continued

## MELOTHRIA PUNCTATA

Ten feet. (Musk Vine.) Blooms in clusters, flowers small, white and star shape, with a strong musk fragrance, leaves green, small and glossy. May be cut down to 6 inches after summer's growth, potted and taken inside. Fruit resembles tiny watermelons. Price—Pkt., 10c.



MIGNONETTE

## MIGNONETTE (Reseda)

Six to 12 in. No garden is complete without this fragrant plant of unassuming mien. One of the principal uses is for cutting purposes and combining in bouquets with other more pretentious blossoms without its delicate odor.

**GOLDEN QUEEN**—Yellow. Price—Pkt., 5c.

**GOLIATH**—Foliage rich green, with bright red flowers. Flower stalks tall and strong, spikes often 7 in. long by 2 in. in diameter. Price—Pkt., 10c.

**GRANDIFLORA**—Large flowered. Price—Pkt., 5c.

**GIANT WHITE SPIRAL**—Flowers silvery-white. Price—Pkt., 5c.

**MACHET**—It is the best Mignonette for all purposes either outside or inside. It is an ever-bloomer, the flowers lasting until late in the fall. Price—Pkt., 10c.

**MIXED**—Many shades and types. Price—Pkt., 5c.

## MIMOSA

**PUDICA** (Sensitive Plant)—One foot. Curious and interesting pinkish-white flowers; the leaves close and droop when touched or shaken. Price—Pkt., 5c.

## MIMULUS

**MOSCHATUS** (Musk Plant)—Musk-scented leaves, tiny yellow flowers. Price—Pkt., 25c.

**TIGRINUS** (Monkey Flower)—10 in. Queen's Prize Single Mixed. Dwarf bushy plants, with large gloxinia-like flowers ranging in color through white, pale, yellow, golden, flesh, rose, crimson and maroon; handsomely blotched and striped. Does best in partial shade. Price—Pkt., 10c.

**TIGRINUS FL. PL.** (Double Monkey Flower)—Mixed. Price—Pkt., 10c.

## MIRABILIS (Marvel of Peru or Four O'Clocks)

This is another good old-fashioned flower of bushy habit, bearing hundreds of flowers during the season, of white, yellow, crimson and violet. Some varieties combine two or more of these colors in spots, flakes and splashes in such a manner as to give the flowers a most bizarre effect.

**MIXED**—All sorts and colors. Price—Pkt., 5c.

**DWARF MIXED**—12 inches. Price—Pkt., 5c.

**SWEET SCENTED** (Longiflora Alba)—White. Price—Pkt., 5c.

## MOON FLOWER

One of the most vigorous summer climbers and will grow under favorable conditions thirty to forty feet in a single season and be covered evenings and cloudy days with very large, trumpet shaped flowers widely extended, often four inches across. Leaves large, frequently four to five inches across. The hard outer coat of the very large, light yellow seed should be cut through with a sharp knife, care being taken not to cut any deeper than the hard shell, and the seed planted about one inch deep in moist soil in a box or pan and set in a warm place. If soil be kept moist, germination will take place in about two weeks. After plants are up, transplant outdoors in a sunny situation when danger from frost is past. Known as *Ipomoea Noctiflora*. Tender annual. White and blue. Price—Pkt., 10c.

## MUSA ENSETE (Banana Plant)

Six feet. A splendid plant for the open air in summer, producing a most striking effect when planted singly or in groups. The seeds must be started in hot-bed or on bottom heat in greenhouse. Price—10 seeds, 20c.

## MYOSOTIS (Forget-Me-Not)

One-half to one foot. They are considered among the best spring flowers and grouped with Pansies and Daisies the most lovely combinations may be obtained. The tall varieties are of trailing habit and adapted to covering large patches, which they transform into a sea of blue. Respond to good treatment and flourish in shady, moist situations. The national flower of Belgium.

**ALPESTRIS BLUE**—Trailing habit. Price—Pkt., 5c.

**ALBA**—White. Price—Pkt., 5c.

**ROSEA**—Pink. Price—Pkt., 5c.

**ELIZA FONROBERT**—Flowers large, sky blue, with clearly defined white eye. Price—Pkt., 10c.

**VICTORIA**—The flowers are large, bright azure blue, with yellow centers. The plants form neat bushes completely covered with blooms. Best for edging. Price—Pkt., 10c.

**STAR OF LOVE**—Distinct variety with large beautiful blue flowers. Price—Pkt., 25c.



MYOSOTIS

## NEMESIA

One foot. Free blooming dwarf bushes for pot culture and open borders. Sow in spring under glass, and transplant; or sow out of doors in May, in patches, where they are intended to flower.

**LARGE FLOWERED MIXED**—1 ft. Is the finest strain of this most popular flower, both for size and massive build of the individual flowers, also for the richness and variety of colors. Price—Pkt., 10c.

**BLUE GEM**—One of the best blue annuals for bedding. 7 inches. Price—Pkt., 10c.

## NICOTANIA (Sweet Scented Tobacco)

Two feet. One of the easiest annuals to raise and one of the most effective. The blossoms in shape are not unlike a *Petunia* blossom, but with a longer tube. The flowers open toward evening and emit a powerful perfume.

## FLOWER SEEDS—Continued

## NICOTANIA—Continued

**AFFINIS (Tuberose-flowered Tobacco)**—A gem for bedding. Most showy and profuse bloomer, giving a continuous display of waxy white flowers right through the summer and autumn. They commence to bloom a few weeks from sowing. The plants are of branching, bushy habit, 2 to 3 feet high; carry their flowers in clusters. One single plant will bear thousands of blooms during the season. The effect in the garden is simply wonderful. Delightfully sweet-scented. Sow seed in boxes or pans in the early spring, and protect from frost and cold winds. Plant out as soon as all danger of frost is over. Price—Pkt., 5c.

**AFFINIS HYBRIDA**—Splendid hybrids in blue, red and rose, etc., shades. Price—Pkt., 5c.

**SANDERAE**—A lovely hybrid tobacco of elegant branching habit, and bearing on light, graceful stems great quantities of very beautiful rosy carmine flowers. A valuable border plant from summer to autumn. Price—Pkt., 5c.

**SANDERAE HYBRIDS**—All shades. Price—Pkt., 5c.

**SYLVESTRIS**—4 ft. A noble-looking plant of pyramidal habit, with long, tubular, pure white flowers, borne in dense panicles, and possessing the merit of remaining fully expanded throughout the day as well as in the evening. Price—Pkt., 5c.

## NIGELLA

**MIXED (Love-in-the-Mist)**—1½ feet. A compact, free-flowering plant with finely cut foliage, curious looking seed pods; of easy culture, growing in any garden soil. Blue and white mixed. Price—Pkt., 5c.

## DWARF NASTURTIIUMS

They are suitable for a bedding and edging, grow quickly and furnish the greatest abundance of long lasting, sweet-scented cut flowers. Sometimes it is desirable, when carrying out a color scheme, to use but one variety of Dwarf Nasturtium for an edging. Empress of India is particularly good when used in this way, as the dark leaved plants are of an even height and the flowers are in rich velvety red. Price—Lb., \$1.00; ¼ Lb., 30c; Oz., 10c; Pkt., 5c.

## TALL NASTURTIIUMS

Eight to ten feet. Few plants are so useful or rich in color as the Nasturtiums. They surpass the Geranium and Calceolaria in brilliancy of color and profusion of bloom; they should be given a dry, poor soil, as on a rich or manured ground they are inclined to run to leaf. Where such is the case, lime rubbish should be mixed with the soil. The sorts we offer are the most decorative and beautiful of all. Price—Lb., \$1.00; ¼ Lb., 30c; Oz., 10c; Pkt., 5c.

## PANSIES

Pansies are now produced in an almost infinite variety of colors and markings. Their brilliancy of shading, extended season of blooming and long keeping characteristics make them general favorites.

Seed may be sown indoors very early in spring, or a little later in the open ground, and transplanted when an inch high. Such plants will commence to bloom in June. If sown in July, the plants will bloom in the fall, or if sown in September, the following spring. Well pulverized soil should be used and the seeds covered one-eighth to one-fourth inch deep with fine soil firmly pressed down. The largest and best flowers are produced by young plants which have been grown rather slowly in a partially shaded situation, and in very rich soil; coolness and moisture are necessary. A situation sheltered from high winds and exposed to the morning sun is most favorable and frequent sprinklings are advantageous. Grown indoors, pansies make a good winter blooming pot plant. Hardy perennial but usually grown as an annual or biennial. Four to six inches high.

**KING OF THE BLACKS (Faust)**—Large velvety, pure black blossoms. This is probably the darkest flower grown. Price—Pkt., 15c.

**GIANT TRIMARDEAU MIXED**—Our stock of this variety produces as large pansies as can be grown. Flowers of richest, most varied shades, well rounded form and generally marked with three blotches. Plants very hardy and vigorous. We recommend this mixture as one sure to give general satisfaction where conditions are at all suitable for pansy growth. Price—Pkt., 20c.

**TRIUMPH OF THE GIANTS**—Most beautiful mixture, perfect giant-flowered. Price—Pkt., 50c.

## PYRETHRUM

Very ornamental, both foliage and flowers. Well adapted for bedding and borders. Sow outdoors in spring as soon as ground can be worked, or for best results start the seed indoors and transplant after danger from frost is past.

**PARTHENIFOLIUM Aureum (Golden Feather)**—Beautiful dwarf gold leaved bedding plant. Flowers white. Half hardy perennial, often treated as an annual; height one foot. Price—Pkt., 10c.



DWARF NASTURTIIUM

## PETUNIA

For freedom of bloom, variety of color and effectiveness these have no equal. If only a little care is bestowed upon them, Petunias will produce their handsome, sweet-scented flowers in their delicate and gorgeous colors throughout the whole summer.

## DOUBLE LARGE FLOWERING VARIETIES

**METCALF'S MIXTURE OF DOUBLE PETUNIAS**—This is a mixture of the best large flowering and fringed double petunias. Seed is saved from plants grown in pots, carefully pollenized and will produce grand flowers. Of course, every one knows only a certain percentage of double flowers may be expected from seed, but our mixture will produce from 20 to 30 per cent of doubles, while the remainder will be choice, large single flowers. The weaker seedlings should be carefully saved, as those invariably produce the finest double flowers. Price—Pkt., 100 seeds, 20c.

**IMPROVED ROSY MORN**—The plants are bushy and compact, the medium size flowers, produced in great abundance throughout the entire summer and fall are of a most pleasing clear pink, contrasted by a broad white throat. A splendid sort for porch boxes, pots and beds. Price—Pkt., 300 seeds, 25c.

## SINGLE DWARF VARIETIES

Dwarf, neat, compact bushes covered with a multitude of flowers all summer long, valuable for edging and formal bedding. Mixed. Price—Pkt., 25c.

## POPPY (Papaver)

These well-known hardy annuals and perennials flower in great profusion throughout the summer. Both the single and double varieties are very desirable for bedding and borders. The flowers are remarkable for their large size, delicacy of tissue and wide range of bright dazzling colors.

As early in spring as ground can be worked sow the seed, which is quite small, where the flowers are to bloom, as the annual varieties do not bear transplanting. Pulverized soil, preferably light sandy loam, should be used. Make rows fifteen inches apart and cover seed one-fourth inch deep. When two inches high, thin from six inches to one foot. To insure continuous bloom during a long season the flowers should be cut regularly and no seed pods allowed to form.

**AMERICAN FLAG**—Snow white with scarlet border. Price—Pkt., 5c.

**MIKADO**—Crimson, striped on white. Price—Pkt., 5c.

**GLAUCAM**—Scarlet. Price—Pkt., 10c.

**SINGLE MIXED**—Price—Pkt., 10c.

## PHLOX DRUMMONDI (Large Flowering)

Unequaled in the magnificent display of their many and brilliantly colored flowers. The plants are hardy bush-like annuals with many broad flat-topped clusters of nearly round and star-shaped flowers. They are of easiest culture and bloom profusely through a long season. Especially attractive in masses or ribbon beds of contrasted colors; useful as window-garden plants and very desirable for combining in mixed bouquets.

Seed is usually sown very early in spring outdoors in rows one foot apart. A sunny situation is desirable. Well pulverized soil, preferably rich and mellow, should be used and the seed, which germinates rather slowly, covered with about one-fourth inch of fine soil firmly pressed down. Thin to four



## FLOWER SEEDS—Continued

### PHLOX DRUMMONDI—Continued

inches apart. For very early blooming, seed may be sown outdoors in fall, or started indoors and transplanted early in April. Hardy annual; one foot high.



PHLOX DRUMMONDI

ALBA—Pure white, very desirable. Price—Pkt., 10c.

DARK PURPLE—Price—Pkt., 10c.

MIXED—Price—Pkt., 10c.

### PORTULACA (Rose Moss)

This plant will grow and bloom profusely in a dry, hot situation, where almost any other plant would soon die. Easily transplanted. In sowing mix the seed with dry sand to insure an even distribution. Sow in May when the ground is thoroughly warmed through, and very soon one of the loveliest of floral carpets will appear.

SINGLE MIXED—Price—Pkt., 5c.

DOUBLE BEST MIXTURE—Price—Pkt., 10c.



PORTULACA—SINGLE

### RICINUS (Castor Bean)

Stately, strong growing plants, with very ornamental foliage, well adapted as center plants of groups of Cannas, Dahlias, etc. Moles are troublesome in many gardens, but they may be kept away by planting Castor Beans in the borders.

SANGUINEUS—Six feet. Green leaved, red stems. Price—Pkt., 5c.

ZANZIBARIENSIS MIXED—10 to 12 feet. The ornamental leaves, beautifully lobed, are 2½ to 4 feet across. Each plant makes a perfect pyramid of foliage. Price—Pkt., 5c.

### RHODANTHE

One of the most beautiful everlastings. Sometimes called Straw Flower. The flower-heads are somewhat bell-shaped, becoming when mature fully expanded and sometimes reflexed. They are gracefully poised on slender stems. The mixture we offer includes rose with golden center and white with yellow disc. Blooms should be gathered before fully expanded and dried in the shade.

Start under glass, or sow seed outdoors after danger of frost is over. Tender annual; one and one-half to two feet high. Mixed. Price—Pkt., 10c.

### SALPIGLOSSIS

Two and one-half feet. Undoubtedly one of the most attractive annuals and should be in every garden. The blossoms are tube-shaped much like a Petunia but rivaling the latter in the beautiful colors displayed. Each flower is veined with a glint of gold, and it is the only flower to our knowledge possessing this odd characteristic. The Salpiglossis is deservedly known as the Orchid of Hardy Annuals. If you are not familiar with this, try one package and we know your garden will always contain it after you have seen it.

SPECIAL MIXTURE—This mixture is put up by ourselves of separate varieties and is without doubt the best mixture obtainable. Price—Pkt., 15c.

GLOXINIAFLORA—Mixed, new, very choice. Price—Pkt., 10c.

### SALVIA SPLENDENS (Scarlet Sage)

The Salvia Splendens is a standard bedding plant that keeps the garden bright with color until late in autumn. This plant lends itself to many uses; it makes a good pot plant, does well in window boxes, and is useful for cutting. Its best use, however, is as a hedge or border plant, for brilliant color effect.



SALVIA

AMERICA, or GLOBE OF FIRE—This is the freest and most continuous bloomer; also the most uniform in habit of growth, which makes it particularly valuable for bedding or planting in lines. Price—Pkt., 25c.

CLARA BEDMAN OR BONFIRE—2 ft. The spikes grow erect and stand clear above the foliage. The plants form handsome globular bushes. Price—Pkt., 10c.

FARINACEA—3 feet. Tall spikes of silvery lavender blooms form a dense mass of foliage. Price—Pkt., 10c.

### SCABIOSA (Mourning Bride)

Commonly known as the Pincushion Plant. The flower stems are long and the blossoms keep well in water. The soft shades predominate. When given plenty of room and the seed vessels are kept regularly picked off, it will last through the whole of the summer. Owing to its sweetness the bees are very fond of it and its floral flavors also attract all the most beautiful types of butterflies to the neighborhood. Price—Pkt., 10c.

## FLOWER SEEDS—Continued

## SCARLET RUNNER BEANS

A rapid growing annual climber, bearing sprays of brilliant scarlet pea-shaped blossoms. Used either as a snap or shell bean for eating as well as being desirable for ornamental purposes. Seed may be planted out of doors as soon as danger of frost is past. Vines ten to twelve feet high. Price—Pkt., 10c.

SCHIZANTHUS (*Retusus Trimaculatus*)

Also known as Butterfly Flower or Poor Man's Orchid. Dainty compact branching plants with finely cut foliage, covered when in bloom with clusters or spikes of brilliantly colored butterfly-like flowers. Valuable for garden decoration or pot culture. Petals bright yellow with margins and tube of carmine or purple-rose, shading from lighter to darker shades.

The seed may be sown outdoors after danger of frost is past, where the plants are to remain; or start inside and transplant when weather is suitable. Hardy annual; about twenty inches high. Price—Pkt., 15c.

SMILAX (*Myrsiphyllum Asparagoides*)

No twining plant in cultivation surpasses this in graceful beauty of foliage. Indispensable to florists for table and house decoration. The hard texture of its small glossy green leaves permits the long delicate sprays of foliage to be kept without wilting several days after being cut.

Planted in spring it makes a fine pot plant for fall and winter. The seed germinates very slowly. The process may be hastened somewhat by soaking the seed in hot water for ten hours before planting, but even then it is often six or eight weeks before the plants make their appearance. Tender perennial climber, ten feet high. Price—Pkt., 10c.

SOLANUM CAPSICASTRUM NANUM  
(Jerusalem Cherry)

Easily grown plants with ornamental fruit. Especially fine for pots. Price—Pkt., 15c.

STOCK (*Mathiola*)

Sometimes called Gilliflower. Considered almost indispensable where a fine display of flowers is wanted and particularly valued for edgings, bedding and pot culture. The improved varieties we offer of this favorite garden plant produce dense spikes of very fragrant and beautiful rosette-like double flowers in a wide range of attractive colors. They are suitable for cutting, being produced on stems of good length in pleasing contrast with the dark green foliage of the bushy plants. Each of the four types is of long flowering period and if the earlier ones are started indoors, a profusion of fragrant and pleasing flowers is afforded for the entire season.

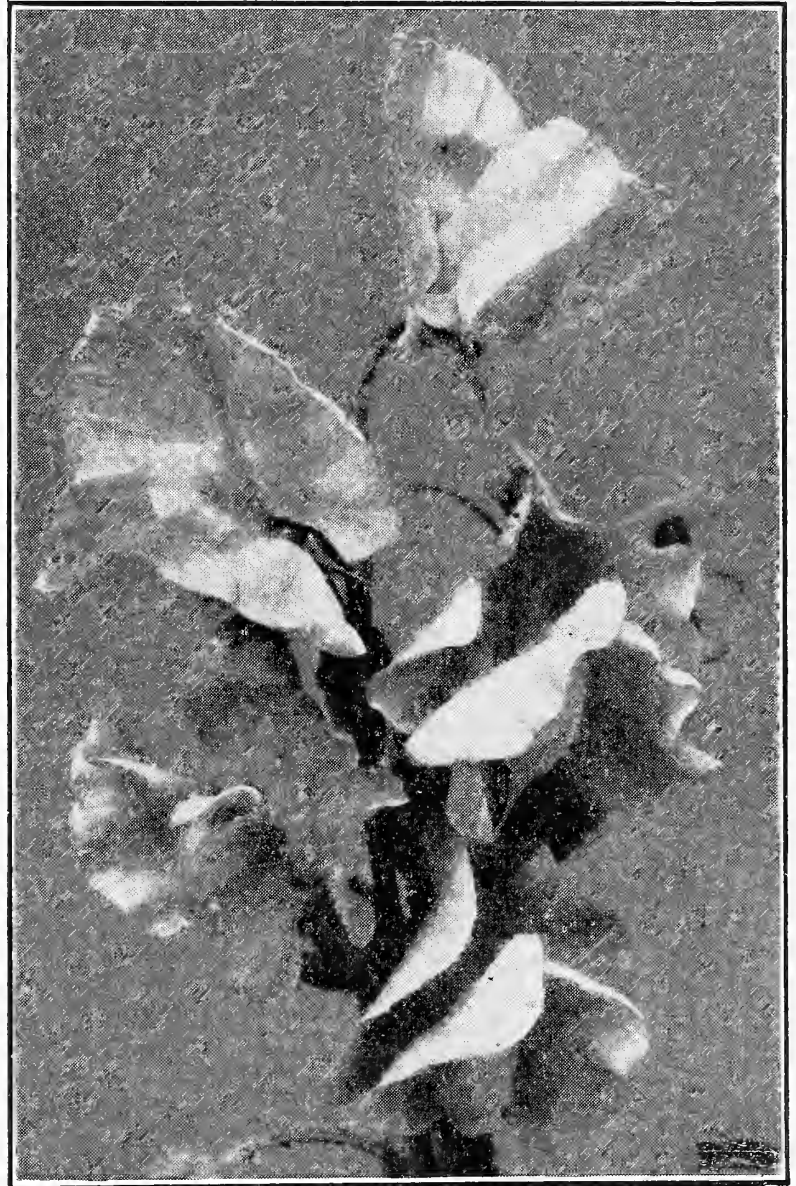
Sow outdoors early in spring, using well fertilized, carefully pulverized soil and cover seed with one-fourth inch of fine soil firmly pressed down. Make the rows fifteen inches apart; thin to six inches apart. For earlier blooming start indoors and transplant. Height of plants, one to one and one-half feet.



Stock

GIANT PERFECTION—"Cut and come again." Mixed. Price Pkt., 10c.

DARK BLUE, LIGHT BLUE, MAUVE, WHITE, SCARLET AND PINK—Price—Pkt., 10c.



SWEET PEAS

## SWEET PEAS

ONE OUNCE OF SEED IS SUFFICIENT TO PLANT A SINGLE ROW 50 FEET

Culture—Early in spring make a trench three to four inches deep in rich, mellow soil, so arranged that no water can stand in it and plant the seed in the bottom, covering at first only one inch deep. Sweet Peas, particularly the white seeded sorts, are often a little difficult to start. If the soil is too dry then they will remain a long time without germinating; if it is too wet and cold they will not sprout at all. In soils at all heavy, or composed largely of clay, put about one inch of sand in the bottom of the trench and sow the seed on this, covering with more sand. Cover the row with a board to shed the rain and protect the soil from the hot sun but remove this as soon as the young plants appear.

When the plants are two inches high, cultivate, and as they grow gradually fill up the trench. When the plants are about five inches high it is desirable to furnish some support for the vines to run upon, preferably a wire netting firmly supported by stakes to prevent sagging, but strings or brush are often used with satisfactory results.

Where plantings are made as early as possible deep spading or plowing, the placing of manure deeply in the soil to draw the roots downward, a sunny situation with the rows running, where possible, north and south, the removal in the early stages of growth of all but two branches and the thinning of the plants eight to twelve inches apart—these conditions are usually essential for the largest and most finely formed blossoms.

The roots should not be allowed to become too dry. Water applied thoroughly once or twice a week, preferably early in the morning or in the evening, is usually better than light sprinkling more frequently.

The blooms should be picked before they form pods or the plants will soon stop flowering.

SPENCERS MIXED—A splendid mixture of Spencer varieties grown by the most careful methods from proven stocks. A wide range of colors is thus assured in this comparatively new class of Sweet Peas of such remarkably large size and wonderfully attractive form. Price—Pkt., 10c; Oz., 20c; 1/4 Lb., 65c; Lb., \$2.00.

DOROTHY ECKFORD—Pure white, shell shaped and are of extra good substance. The variety is considered the best of this class. Seed white. Price—Pkt., 10c; Oz., 30c.



## FLOWER SEEDS—Continued

**CHOICE MIXED**—This mixture has been most carefully grown from selected stock seed and it will afford a splendid variety of blooms of improved forms and in the widest possible range of desirable colors. Many of the most pleasing and brilliant colors are included. Price—Pkt., 10c; Oz., 15c; ¼ Lb., 35c; Lb., \$1.00.

**BLANCHE FERRY SPENCER**—This is similar in color to the old Blanch Ferry but like all Spencers, the type is not unalterably fixed. Rose-pink standard; wings white, suffused and tinted with light pink. Price—Pkt., 10c; Oz., 25c.

**ECKFORD'S MIXTURE**—Contains some of each of the entire list of varieties and cannot fail to give satisfaction. Lb., 75c; ¼ Lb., 25c; Oz., 10c; Pkt., 5c.

**PRIMA DONNA**—Daybreak pink. Pkt., 10c.

**KING EDWARD VII**—Bright red. Pkt., 10c.

**LADY GRISEL HAMILTON**—Best of all lavender sorts. Pkt., 10c.

**LORD NELSON**—Deeper and richer than Navy Blue. Pkt., 10c.

### THUMBERGIA (Black-Eyed Susan)

Very pretty, rapid growing annual trailing plants. Used extensively in hanging baskets, etc. Prefers a warm, sunny location. Pretty flowers in white, orange, etc., with dark eyes. Mixed. Price—Pkt., 10c.



VERBENA

### VERBENA

This well known annual of low growing decumbent habit of growth is very desirable for massing in beds on the lawn. It is suitable also for borders and window boxes. Large clusters of showy flowers are borne in succession through a long season until frost. Each truss or cluster is about two to three inches across, and includes a dozen or more single flowers about three-fourths of an inch across, tubular, with five spreading lobes. The length of stem and texture of the flowers make them of value for bouquets and table decorations. There is a wide range of colors, shades and stripes usually running from pure white to deep purple.

Verbenas usually flower well in August from seed sown in open ground in May. Germination will be hastened if the seed is soaked in lukewarm water before planting. It is desirable to have the soil well fertilized and carefully pulverized. Cover seed about one-fourth inch deep. When the young plants have three or four leaves transplant in rows two feet apart and about twenty-four inches apart in the row, choosing preferably a sunny situation. At this distance the plants, if conditions are favorable, will spread so as to cover the ground completely.

Earlier blooming may be had if plants are started indoors and transplanted in the open ground after danger of killing frost is over. Half hardy perennial trailer, one foot high, usually treated as an annual.

**HYBRIDA COMPACTA MIXED**—A distinct sort. The plant forms a compact bunch about five inches high and eighteen inches across, covered throughout the season with large trusses of white, scarlet and violet flowers. Price—Pkt., 15c.

### VINCA (Periwinkle)

These very attractive bushy plants with glossy green foliage produce in abundance handsome round or salver shaped single flowers, suitable either for culture in pots or boxes or for summer bedding and borders. If sown early under glass and transplanted in a warm, sheltered situation will bloom in summer and autumn and may be potted for the house before frost. The plants require no trimming, are in continuous bloom from setting out until frost and are entirely free from the attacks of insects. These desirable features account for the increasing demand for Vincas in parks and private grounds for summer bedding and borders. Tender perennial, blooming the first season, about fifteen inches high.

**PURE WHITE**—Beautiful pure white. Price—Pkt., 10c.

**ROSEA ALBA**—White with pink eye. Price—Pkt., 10c.

**ROSEA**—Pink. Price, 10c.

**MIXED**—The above named varieties mixed. Price—Pkt., 10c.

### WALLFLOWER

This is a favorite European garden flower. The long, fragrant terminal spikes of the Wallflower when properly grown are very conspicuous in beds and borders and are very useful in making bouquets.

Sow seed early in hotbed and while plants are small prick them out into pots and sink in the earth. On approach of cold weather remove the pots to the house and the plants will bloom all winter. Tender bushy biennial or perennial that will live through the winter in a mild climate; height of plants about one and one-half feet.

**DOUBLE MIXED**—Deliciously fragrant, perfectly double, and combine many shades of color, the orange, purple and chocolate predominating. Price—Pkt., 10c.

### WILD CUCUMBER (Echinocystis Lobata)

This is a useful climber where a rapid and vigorous growth of vine is desired. To cover or to screen an unsightly building, there is perhaps no annual climber better adapted for the purpose. The vine has abundant foliage and is thickly covered with sprays of small white, fragrant flowers, followed by numerous prickly seed pods.

Sow late in fall or very early in spring. Usually the plants are produced from year to year by self-sown seed. Hardy annual. Price—Pkt., 5c.

### WISTARIA CHINENSIS

One of the most beautiful and rapid growing of the hardy perennial climbers. When well established in good soil it will often grow fifteen to twenty feet during the season and frequently blooms both in spring and fall. The flowers are very fragrant, single, pale blue, pea-shaped and are borne in long, drooping grape-like clusters, often over a foot in length. Foliage light green, pinnate. The seed should be sown in mellow loam early in the spring, or in greenhouse or hotbed in winter and when plants are one foot high transplanted into permanent situations. Price—Pkt., 20c.

### ZINNIA

Sometimes called Youth and Old Age. The well known bush-like plants of Zinnias produce a profusion of large double imbricated flowers, borne on stiff stems. They are much used for bedding and are suitable for borders and for cutting. When nearly every other flower has been killed by frost this plant is still in full bloom. Few flowers are more easily grown or bloom more abundantly throughout the season, and the wide range of color is not less remarkable than their unusual depth and richness.

Sow the seed early in spring, in open ground in good rich soil, preferably in rows one and one-half feet apart and covering about one-fourth inch deep. When the young plants are one to two inches high thin to six inches apart. Start under glass for earlier blooming. Half hardy annual; tall growing; usually about one and one-half to two feet high.

**DAHLIA FLOWERED**—Superb mixed flowers of extra large size, real double and of brilliant color. Price—Pkt., 15c.

**CRESTED AND CURLED**—Price—Pkt., 15c.

**TOM THUMB DWARF MIXED**—Price—Pkt., 15c.



ZINNIA



## Makes Beautiful Lawns and Gardens!

The real secret in making plants grow to perfection lies in having a rich fertile soil. All plants need a plentiful supply of plant food and a loose mellow soil filled with organic matter in which to develop their real beauty. So in all your planting, let your first thought be the preparation of a rich fertile soil so that your plants can start off with a fair chance of life.

Wizard Sheep and Cow Manures are natural plant foods that will make your soil rich and fertile. They supply the essential organic matter to make soils mellow and friable, insuring strong root growth. Wizard Manures are concentrated and are absolutely weedless. Their concentrated strength goes a long way—**ONE BAG EQUALS A WHOLE LOAD OF STABLE MANURE.** They are not chemical stimulants but are real plant foods that give your soil just what it needs to make all plants grow to perfection.

**LAWNS**—Wizard Sheep Manure produces a thick, velvety green turf of lasting beauty. In making new lawns, pulverize the surface soil well and broadcast 10 lbs. to each 100 square feet and rake into the surface soil. For renovating old lawns, broadcast 6 to 10

lbs. per 100 square feet. Wizard will put new life and beauty into old lawns.

**FLOWER GARDENS**—Beautiful green foliage and a wealth of vivid colored flowers are the result of feeding your plants with Wizard. Applications during the growing season will put new life in your plants and prolong the blooming period. For perennials, annuals, vines and shrubs, apply 10 lbs. per 100 square feet or a handful or more mixed with soil under each plant will bring rugged growth and increased beauty.

**VEGETABLES AND FRUITS**—Wizard Sheep Manure produces big crops of crisp tender vegetables; fruit of high color and fine flavor. There is nothing better to improve your soil and produce profitable crops. Apply 10 lbs. per 100 square feet, or 2000 lbs. per acre.

**FLORISTS**—Wizard Sheep and Cow Manures have been the standard of quality for 17 years. For top dressing and liquid manuring Wizard Sheep Manure is unexcelled. Wizard Shredded Cow Manure makes an ideal mulch and supplies sufficient plant food to grow big crops of highest quality. You need manure to grow plants at a profit and it pays to use Wizard.

### PRICES

100 Lb. Sack.....	\$2.75
50 Lb. Sack.....	1.50
25 Lb. Sack.....	1.00

10 Lb. Sack.....	.50
5 Lb. Sack.....	.25
2 Lb. Sack.....	.15

**WIZARD**  
TRADE BRAND MARK

**Sheep Manure**



## AUTOMATIC INCUBATORS AND BROODERS

Automatic Incubators are noted for their ability to produce maximum hatches of vigorous, healthy chicks with labor, risk and cost reduced to a minimum.

Every possible feature for successful hatching is embodied in each Automatic Incubator, providing you with the most economical machine that you can possibly purchase.

Thousands in successful operation are delivering most unusual service and are delivering the greatest satisfaction.

Poultry, for the amount invested, represents the best money maker we now have on our farms.

It will pay you to place Automatic Incubators and Brooders as your equipment and receive the greatest possible profit.

### AUTOMATIC INCUBATORS OIL BURNERS

No. 1. Capacity 125 eggs.....	\$39.50
No. 2. Capacity 175 eggs.....	44.50
No. 3. Capacity 250 eggs.....	57.75

### AUTOMATIC FEATURES THAT MEAN MONEY TO YOU

Cannot overheat; cannot underheat. The patented Automatic Revolving Chute does it.

Double wall and double corrugation cabinet construction of best grade California Redwood.

Legs of heavy ash to prevent splitting and breaking off.

Removable drawer front keeps chicks in nursery tray while door is open.

Moisture condenses right at egg tray, exactly where it should.

Adjustable compensating locks on outside door assures tight fitting.

Heavy double doors afford maximum protection.

Solid molding, heavy screws and brass bound corners make the Automatic always tight.

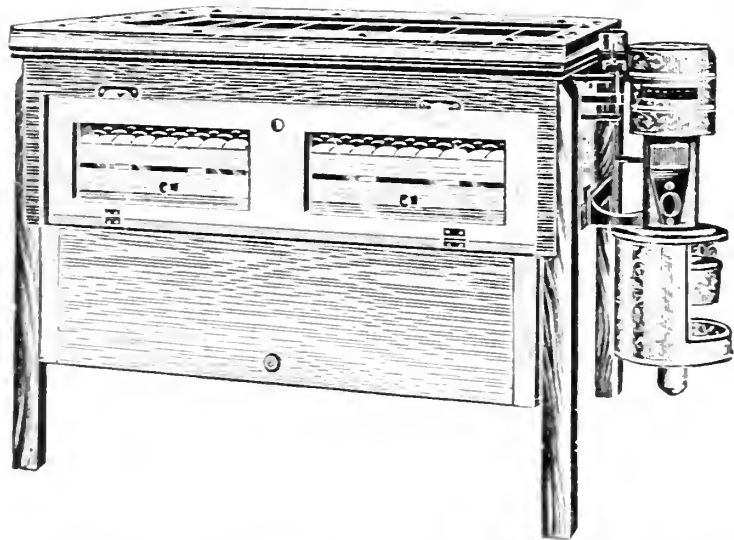
Heating element of 14 ounce copper insures durability and perfect radiation.

Wire partitions in all models from 250 egg up, permit operator to hatch different breeds at the same time.

Is absolutely Fireproof. Carries Underwriters' label which validates your insurance.

Is furnished with either coal oil lamps or with gas burners for natural or artificial gas.

Automatic Incubators hold the number of eggs specified and are backed by a broad guarantee.



### AUTOMATIC MAMMOTH JUNIOR PORTABLES (Three Sizes)

It is just as easy to raise larger flocks and reap bigger profits as it is to raise small flocks. Look over the three models, 500 egg, 750 egg, and 1,000 egg, and note the many labor-saving devices all produced so that any size you desire is yours at a most reasonable price.

Automatic construction embodied throughout.

Cabinet and molding of highest grade California Redwood. Legs of ash mounted on heavy casters which permits moving the machine about the same as a piano.

Trays all on one side of incubator. You do not have to walk all around the machine to handle the trays. All lamps at one end of incubator to minimize labor and space.

Doors have heavy chain fasteners which prevent tearing away from hinges.

All three models are equipped with two hatching cabinets of equal capacity. The No. 5D Model, 500 egg, has two cabinets of 250 eggs each; the No. 7 Model, 750 egg, has two cabinets of 375 eggs each, and No. 10 has two cabinets of 500 eggs each.

You can set one cabinet and wait until you have more eggs ready for the other cabinet, or if you have enough eggs you can set both cabinets at the same time. Each cabinet has its own heating plant. You do not have to operate a large cabinet to hatch a small number of tested fertile eggs. Think what that means after you have tested out a great number of infertiles.

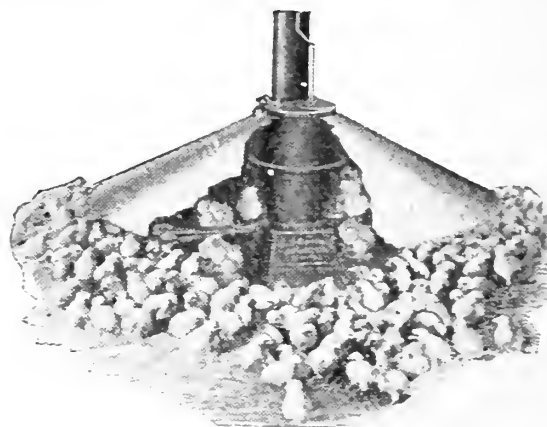
The Automatic Cooling Rack, an exclusive patented feature of the Automatic, is for the cooling and turning of eggs. Remove trays and slip into rack. Eliminates the necessity of having tables in the room to place the eggs on while cooling. Minimizes working space and absolutely prevents heat and gas from one cabinet penetrating the other.

All models occupy unusually small amount of floor space. No special buildings required.

Crated and assembled so that upon arrival of machine all that is necessary is to remove the top and lamp end of the crate, take out the blocking, and roll the machine out. It is ready for operation—you do not have to put it together.

### AUTOMATIC BROODERS

#### AUTOMATIC COAL BURNING BROODER



is self regulating. A uniform temperature is maintained under the hover regardless of weather conditions. Fire is retained in the stove, and will not go out as long as there is any coal to burn. This prevents the brooder house from chilling and keeps the room warm for many feet outside the hover. The chicks remain within the warm area, eating, scratching and sleeping.

A practical brooding system at an economical cost.

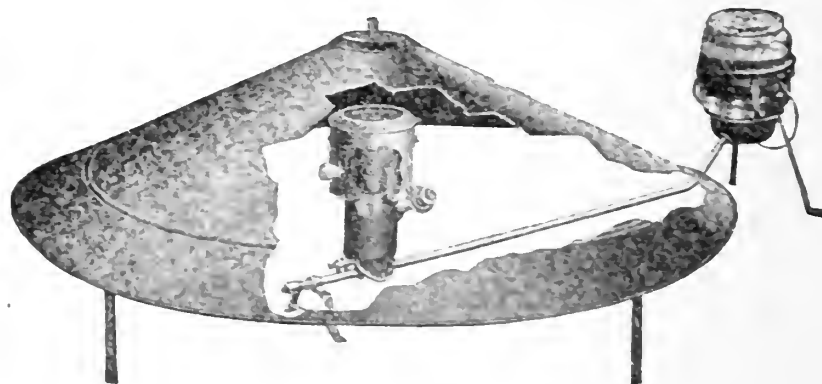
#### CAPACITY AND DIMENSIONS

	No. 5	No. 10
Price .....	\$21.50	\$26.50
Chick Capacity.....	500	1000
Height of Stove.....	21 1/2"	23"
Diameter of Base.....	12"	13 1/2"
Diameter of Grate.....	8 1/4"	9"
Diameter of Canopy.....	42"	52"
Shipping Weight.....	80 lbs.	100 lbs.

Stoves are equipped with rocker grate, self-cleaning, and will not clog. Equipment includes portable ash pan, and rope and pulleys for canopy.

Can be furnished at same price with gas burner equipment.

#### AUTOMATIC BLUE FLAME WICK TYPE OIL BURNING BROODERS



This brooder is of the wick type construction, burns coal oil (kerosene) and is just as simple to operate as an ordinary house lamp. It will not smoke, is odorless and operates without noise. It is free from complicated mechanism and has no troublesome levers, valves, or thermostats. It is self feeding, safe and durable, maintaining an even flame as long as there is oil in the reservoir.

OIL-BURNING	No. 200	No. 350	No. 500
Price .....	\$17.50	\$19.00	\$22.50
Chick Capacity.....	200	350	500
Diameter of Canopy.....	34"	42"	52"
Shipping Weight.....	50 lbs.	60 lbs.	70 lbs.

Automatic Square Canopy, wick type Oil Brooder, 200 chick, No. 205—\$14.00.

Drop us a postal card for AUTOMATIC catalog and special book, "Progress of Artificial Incubation."

# REFERENCE TO OUR RESPONSIBILITY

Thousands of farmers will see this catalog that do not know us, and we consider it absolutely necessary for farmers to know that firms with whom they are dealing at a distance are thoroughly reliable. We refer you to the Salt Springs National Bank, Syracuse, N. Y., and the State Bank of Chittenango, N. Y. Also to Dun's and Bradstreet's Commercial Agencies, the leading agricultural papers of the East and many thousands of our customers. Your own bank will tell you if we are responsible or not.

## REFERENCE TABLE

### Quantity of Seed Requisite to Produce a Given Number of Plants and Sow an Acre

	Quantity Per Acre		Quantity Per Acre
Asparagus, 1 oz. to 500 plants.....	5 lbs.	Grass, Timothy.....	10 to 15 lbs.
Artichoke, 1 oz. to 500 plants.....	6 ozs.	Kale, 1 oz. to 4,000 plants.....	8 ozs.
Barley .....	2 to 2½ bu.	Kohl Rabi, 1 oz. to 300 feet of drill.....	2 lbs.
Beans, Dwarf, 1½ pints to 100 feet of drill.....	1 bu.	Leek, 1 oz. to 200 feet of drill.....	4 lbs.
Beans, Pole, 1 qt. to 150 hills.....	½ bu.	Lettuce, 1 oz. to 120 feet of drill.....	3 lbs.
Beet, Garden, 1 oz. to 50 feet of drill.....	5 to 6 lbs.	Martynia, 1 oz. to 200 feet of drill.....	5 lbs.
Beet, Mangel, 1 oz. to 50 feet of drill.....	6 lbs.	Melon, Musk, 1 oz. to 80 hills.....	2½ lbs.
Broccoli, 1 oz. to 3,000 plants.....	4 ozs.	Melon, Water, 1 oz. to 50 hills.....	4 lbs.
Broom Corn.....	15 lbs.	Nasturtium, 1 oz. to 50 feet of drill.....	15 lbs.
Brussels Sprouts, 1 oz. to 3,000 plants.....	4 ozs.	Oats .....	2 to 3 bu.
Buckwheat .....	½ to 1 bu.	Okra, 2 ozs. to 100 feet of drill.....	8 lbs.
Cabbage, 1 oz. to 3,000 plants.....	6 ozs.	Onion Seed, 1 oz. to 200 feet of drill.....	5 lbs.
Carrot, 1 oz. to 100 feet of drill.....	3 lbs.	Onion Seed, for Sets.....	40 to 50 lbs.
Cauliflower, 1 oz. to 4,000 plants.....	4 ozs.	Onion Sets, 1 quart to 20 feet of drill.....	8 to 10 bu.
Celery, 1 oz. to 8,000 plants.....	2 ozs.	Parsnip, 1 oz. to 200 feet of drill.....	4 to 5 lbs.
Clover, Alsike and White Dutch.....	5 to 10 lbs.	Parsley, 1 oz. to 150 feet of drill.....	3 lbs.
Clover, Large Red.....	10 lbs.	Peas, Garden, 1 quart to 75 feet of drill.....	2 to 3 bu.
Clover, Medium.....	12 lbs.	Peas, Field.....	2 bu.
Collards, 1 oz. to 3,000 plants.....	4 ozs.	Pepper, 1 oz. to 2,000 plants.....	4 ozs.
Corn, Sweet, 1 quart to 200 hills.....	1 peck	Potatoes .....	10 to 12 bu.
Cress, ½ oz. to 100 feet of drill.....	10 lbs.	Pumpkin, 1 lb. to 300 hills.....	3 to 4 lbs.
Cucumber, 1 oz. to 50 hills.....	2 lbs.	Radish, 1 oz. to 100 feet of drill.....	9 to 12 lbs.
Egg Plant, 1 oz. to 2,000 plants.....	4 ozs.	Rye .....	1½ to 2 bu.
Endive, 1 oz. to 200 feet of drill.....	3 lbs.	Salsify, 1 oz. to 150 feet of drill.....	8 lbs.
Flax, broadcast.....	½ bu.	Spinach, 1 oz. to 100 feet of drill.....	8 to 10 lbs.
Garlic, bulbs, 1 lb. to 10 feet of drill.....		Summer Savory, 1 packet to 100 feet of drill.....	¾ lb.
Gourd, 1 oz. to 25 hills.....		Squash, Summer, 1 oz. to 50 hills.....	3 lbs.
Grass, Blue, Kentucky.....	2 bu.	Squash, Winter, 1 oz. to 25 hills.....	4 lbs.
Grass, Blue, Canada.....	2 bu.	Tomato, 1 oz. to 3,000 plants.....	4 ozs.
Grass, Hungarian and Millet.....	½ bu.	Tobacco, 1 oz. to 5,000 plants.....	2 ozs.
Grass, Mixed Lawn.....	100 to 150 lbs.	Turnip, 1 oz. to 200 feet of drill.....	2 lbs.
Grass, Orchard, Perennial Rye, Fowl Meadow and Wood Meadow.....	2 bu.	Vetches .....	½ to 1 bu.
Grass, Red Top, Fancy Clean.....	8 to 10 lbs.	Wheat .....	1¼ to 2 bu.

### Number of Plants or Trees to the Acre at Given Distances

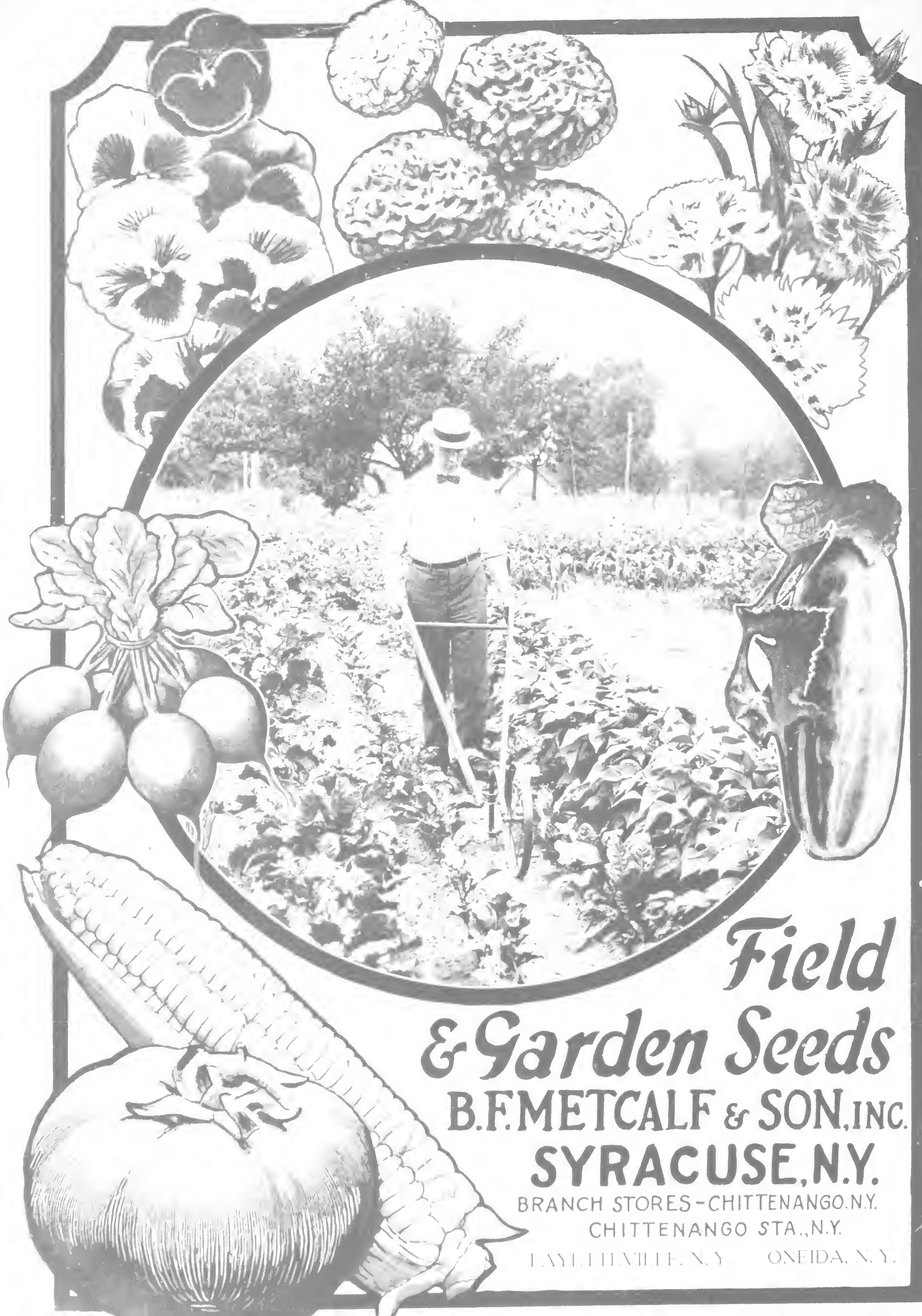
Distance apart	No. Plants	Distance apart	No. plants	Distance apart	No. plants	Distance apart	No. plants
12 x 1 inches.....	522,720	84 x 24 inches.....	10,890	36 x 36 inches.....	4,840	60 x 60 inches.....	1,743
12 x 3 ".....	174,240	30 x 1 ".....	209,088	42 x 12 ".....	12,446	8 x 1 foot.....	5,445
12 x 12 ".....	43,560	30 x 6 ".....	34,848	42 x 24 ".....	6,223	8 x 3 feet.....	1,815
16 x 1 ".....	392,040	30 x 12 ".....	17,424	42 x 36 ".....	4,148	8 x 8 ".....	680
18 x 1 ".....	348,480	30 x 16 ".....	13,068	48 x 12 ".....	10,890	10 x 1 ".....	4,356
18 x 3 ".....	116,160	30 x 20 ".....	10,454	48 x 18 ".....	7,790	10 x 6 ".....	726
18 x 12 ".....	29,040	30 x 24 ".....	8,712	48 x 24 ".....	5,445	10 x 10 ".....	435
18 x 18 ".....	19,360	30 x 30 ".....	6,970	48 x 30 ".....	4,356	12 x 1 ".....	3,630
20 x 1 ".....	313,635	36 x 3 ".....	58,080	48 x 36 ".....	3,630	12 x 5 ".....	736
20 x 20 ".....	15,681	36 x 12 ".....	14,520	48 x 48 ".....	2,723	12 x 12 ".....	302
24 x 1 ".....	261,360	36 x 18 ".....	9,680	60 x 36 ".....	2,901	16 x 1 ".....	2,722
24 x 18 ".....	15,520	36 x 24 ".....	7,260	60 x 48 ".....	2,178	16 x 16 ".....	170

### WE DO NOT WARRANT SEEDS

The fact that no reputable seedsman now warrants seeds in any respect being well known, renders it unnecessary for us to say very much on this point, as it must be apparent to every intelligent person that no seedsman can afford to send out poor or worthless seeds. There could be no more certain way of destroying his business. We beg to append the following notice:

B. F. Metcalf & Son, Inc., gives no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds they sell, and will not be responsible for the crop. If the customer does not accept the goods on these terms, they are to be returned at once.





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& Garden Seeds*  
**B.F. METCALF & SON, INC.**  
**SYRACUSE, N.Y.**

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